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(54) Abstract Title  
**Transmission of web address data in a radio frequency signal**

(57) A predetermined web site address is embedded in a transmitted radio frequency signal which is subsequently received, decoded and forwarded to a computer to provide access to the site via the internet. The radio frequency signal may be a broadcast television or radio programme received from a satellite, the internet or cable. The arrangement allows easier access to a web site referred to in a programme. A smart card may be provided to access the site address data.

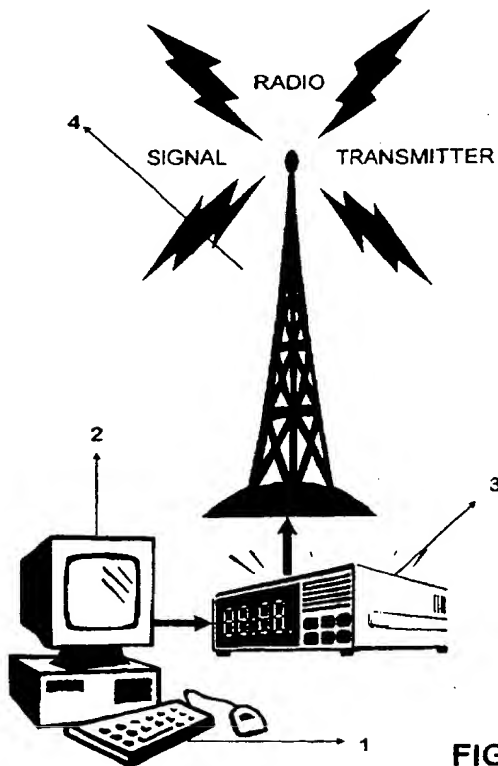
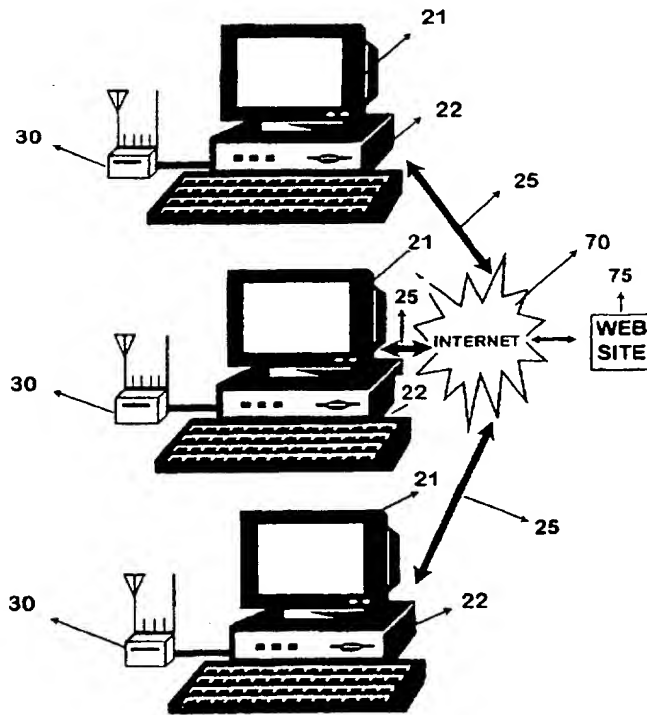


FIG. 1



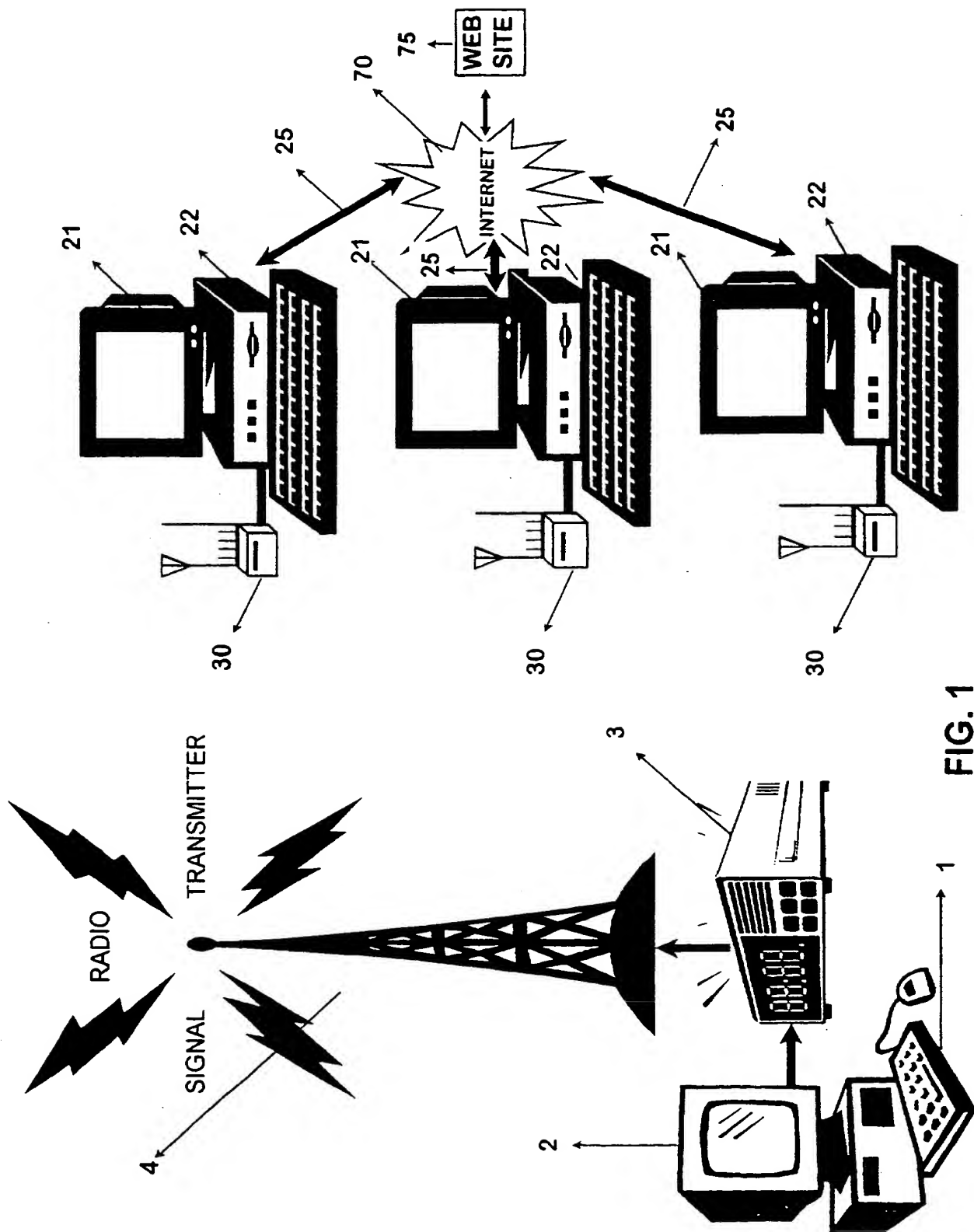
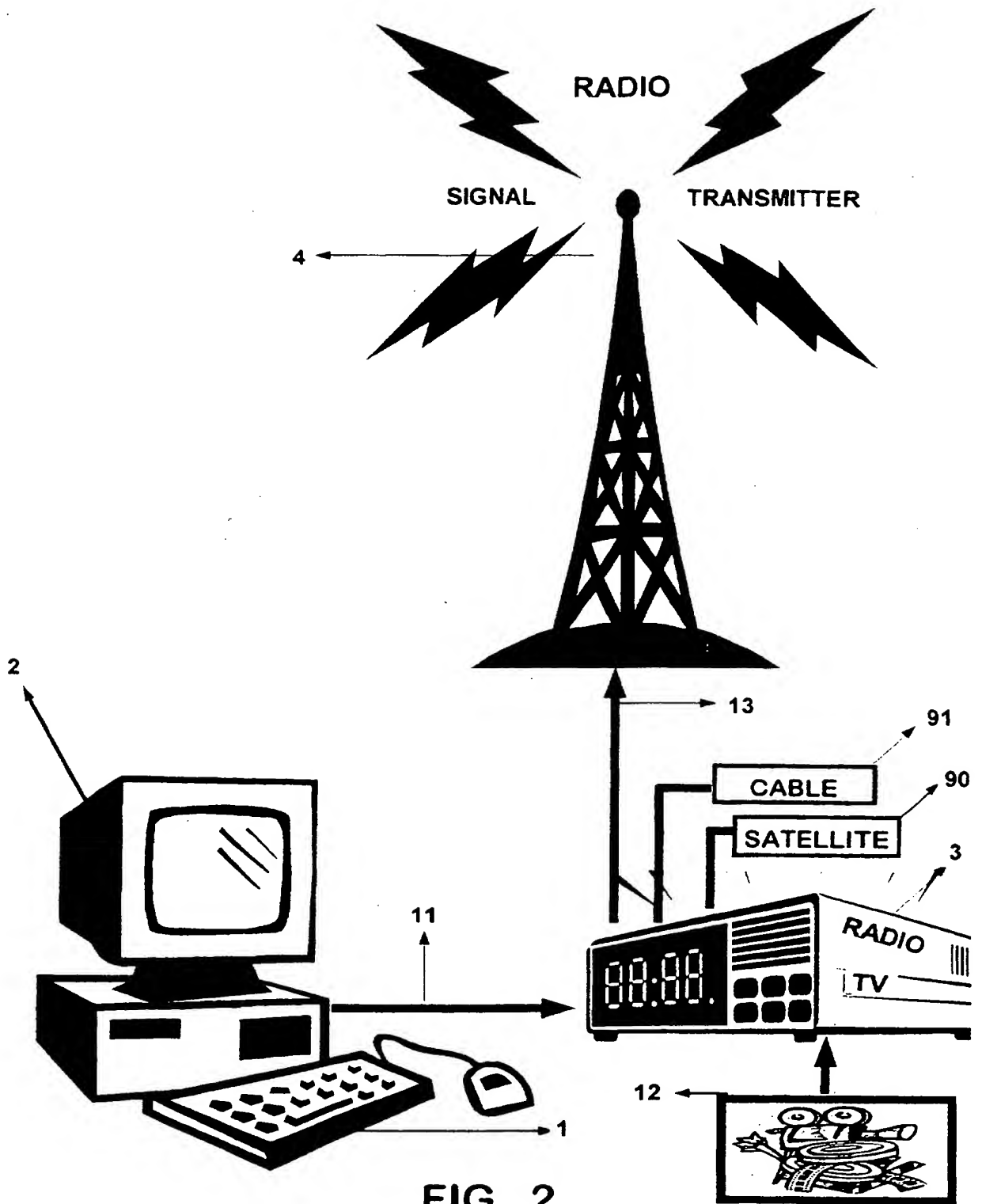


FIG. 1



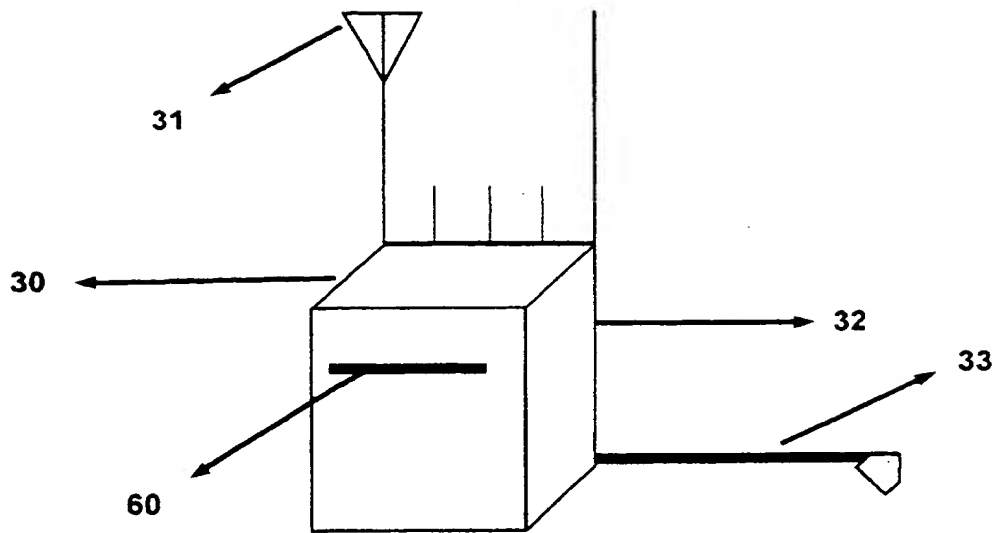


FIG. 3

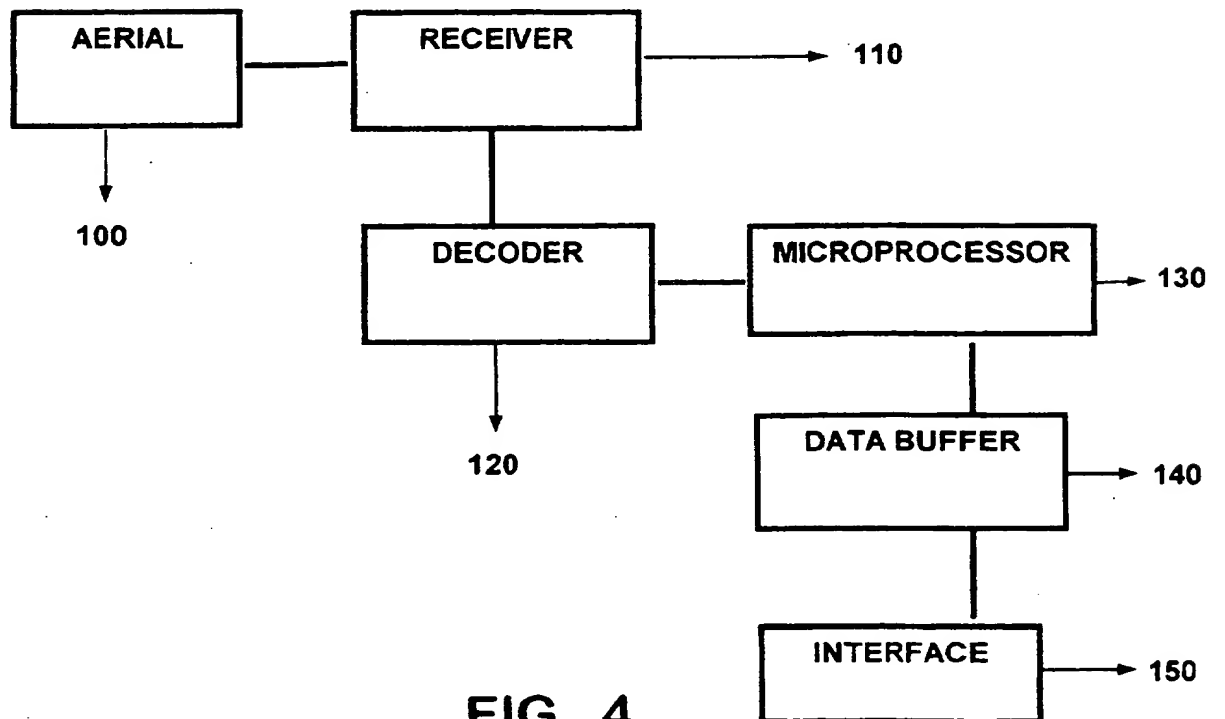


FIG. 4

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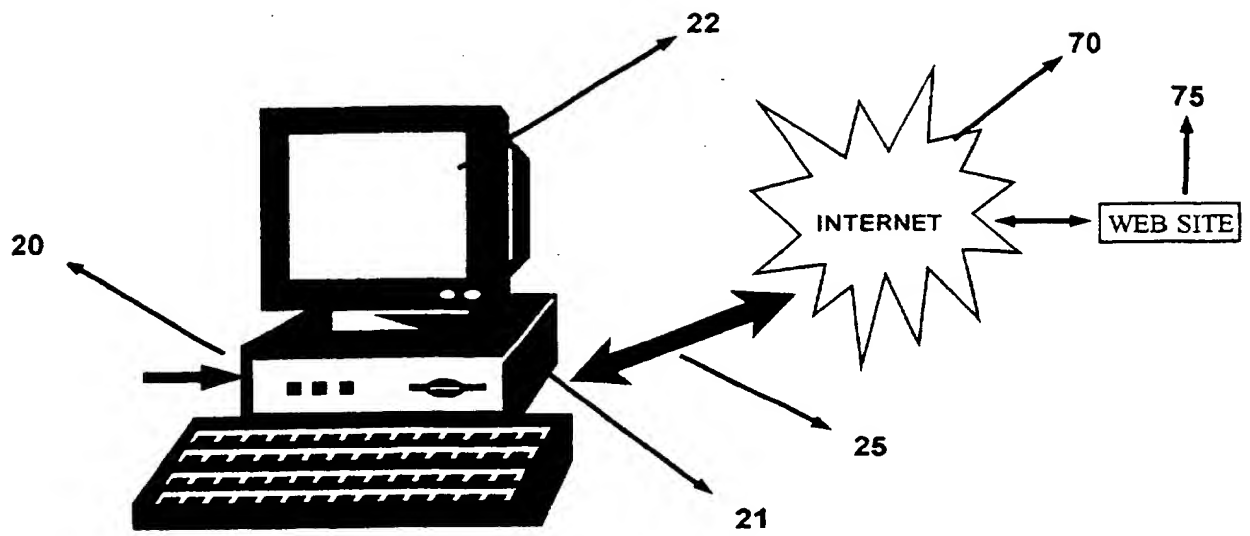


FIG. 5

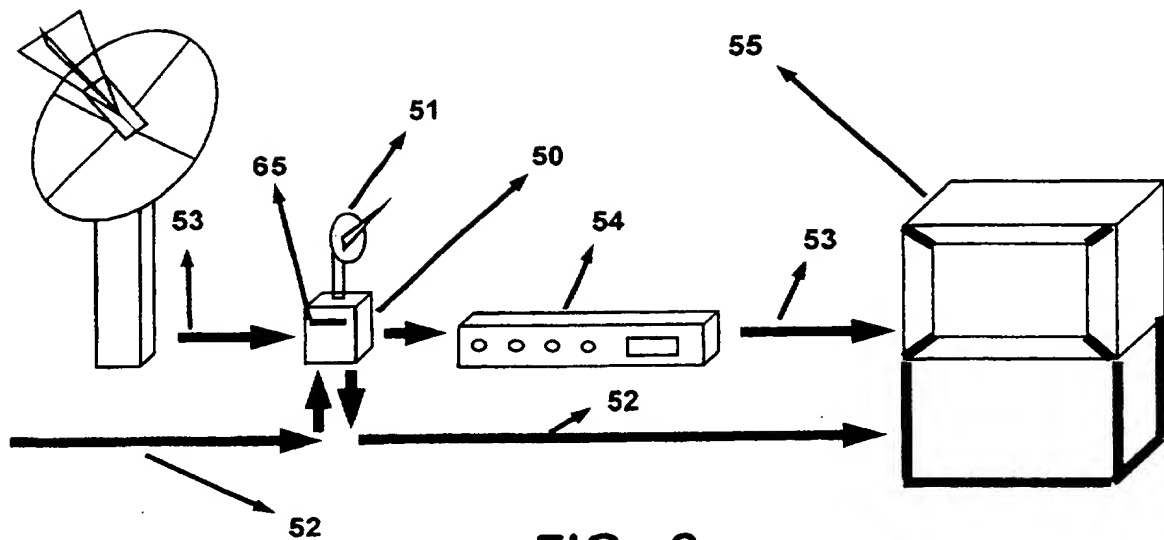


FIG. 6

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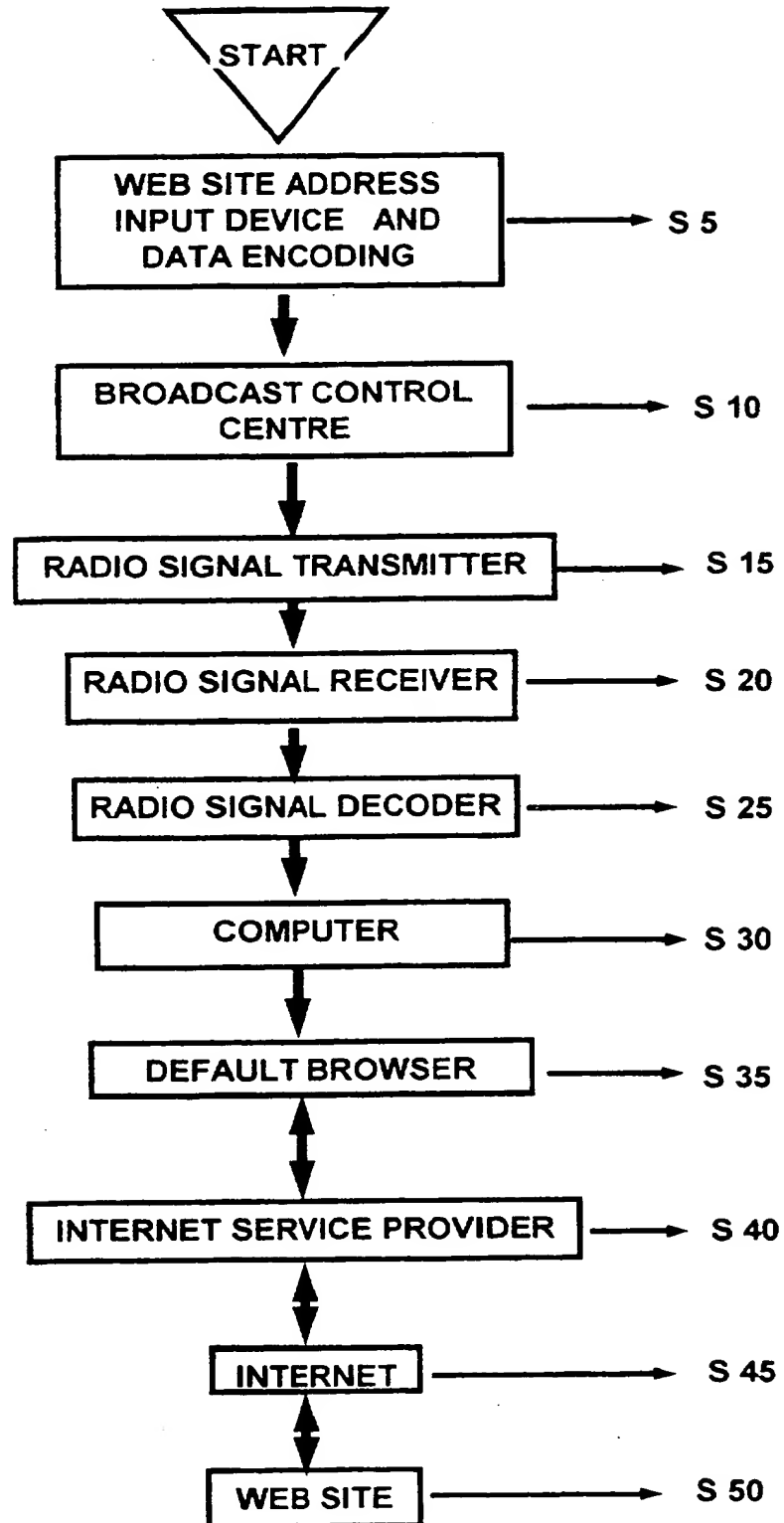


FIG. 7

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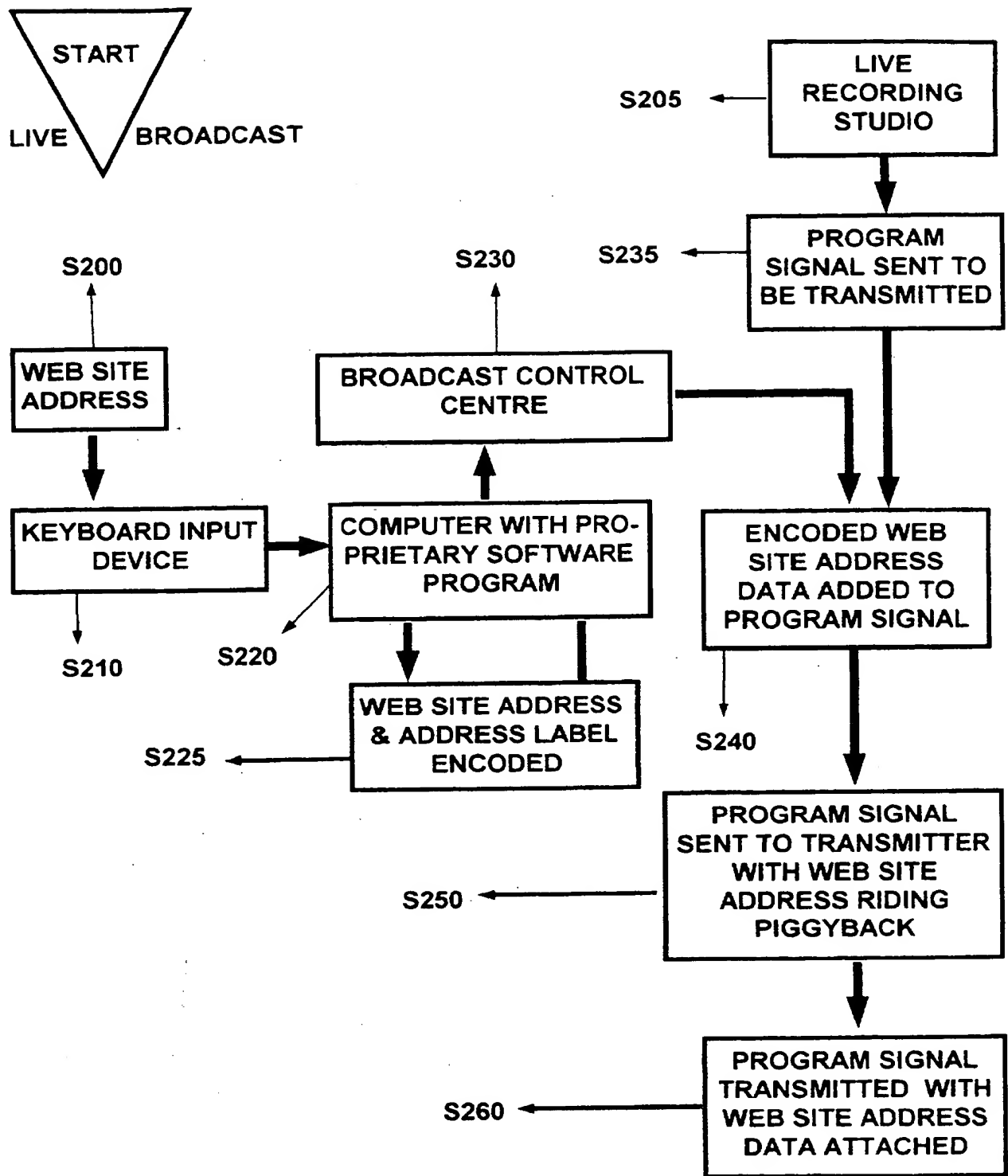


FIG. 8

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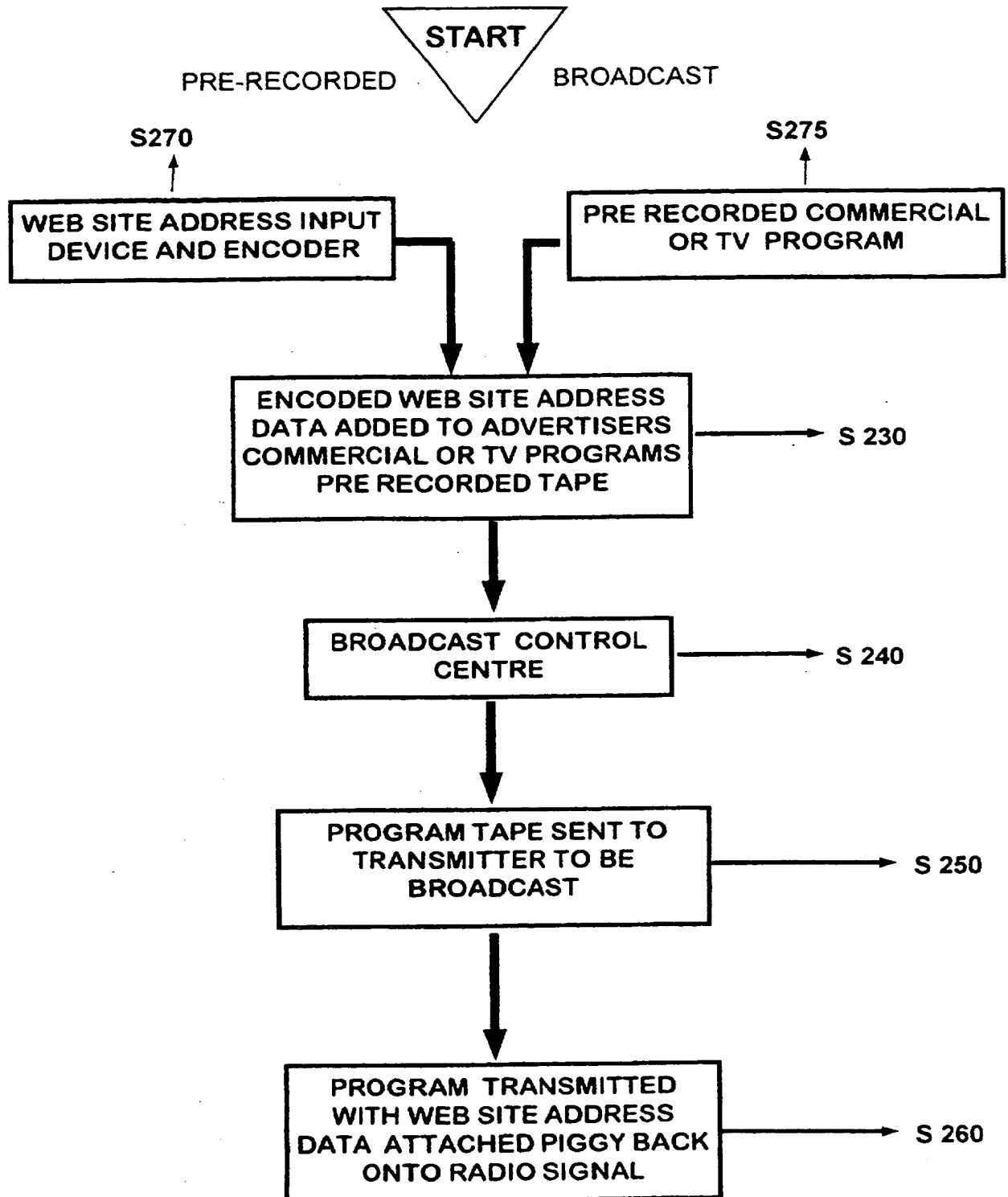


FIG. 9



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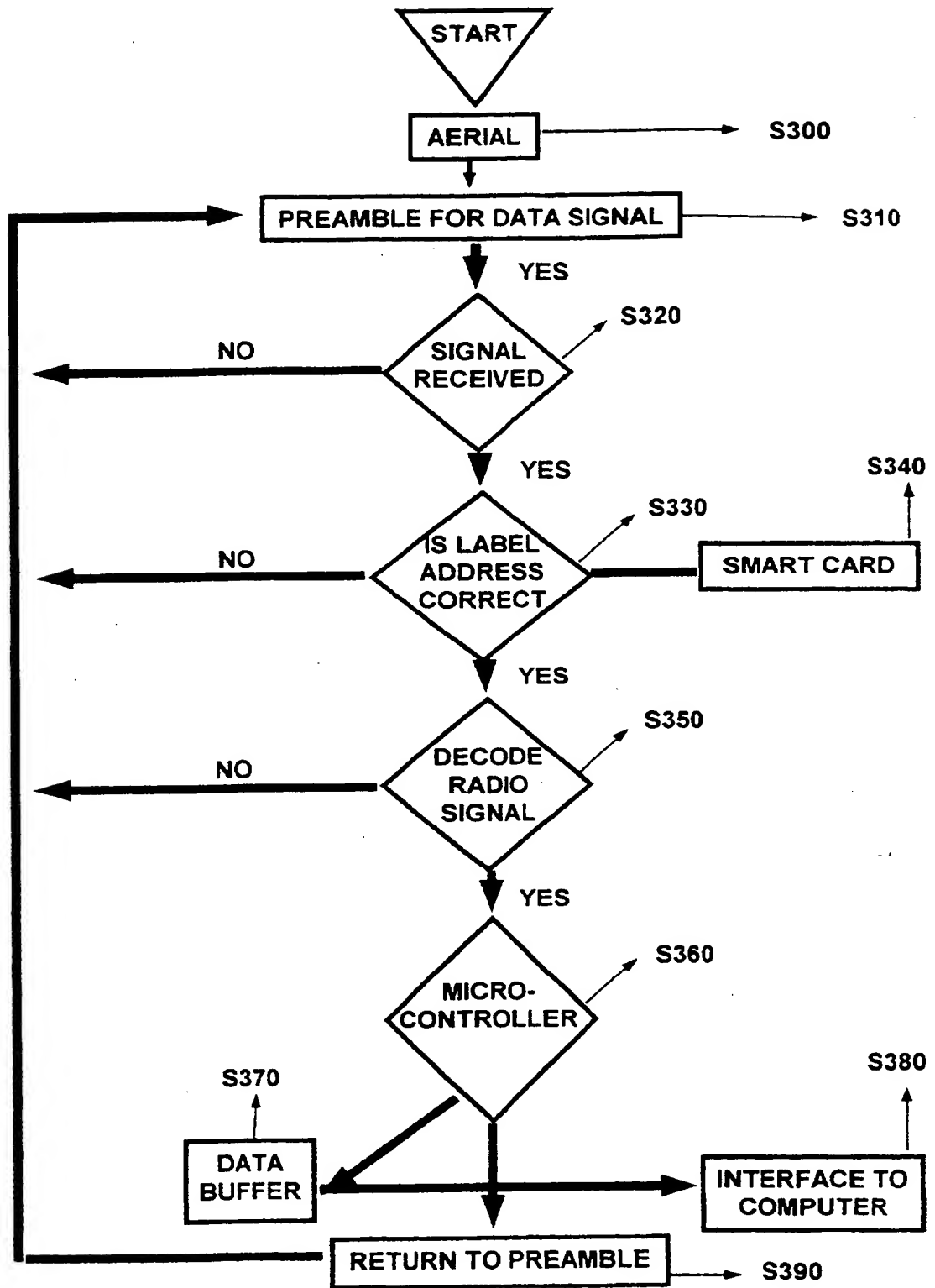


FIG. 10

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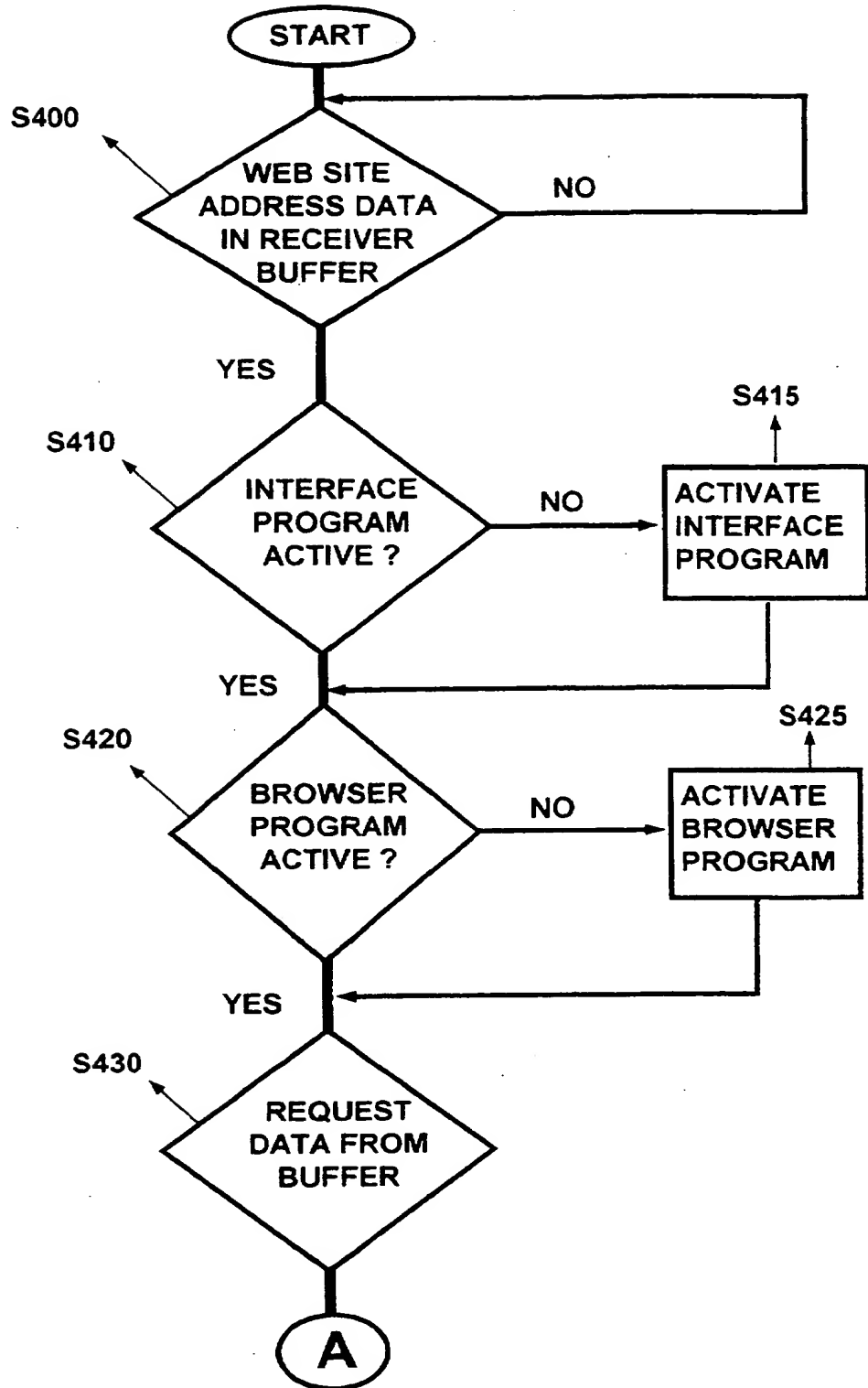
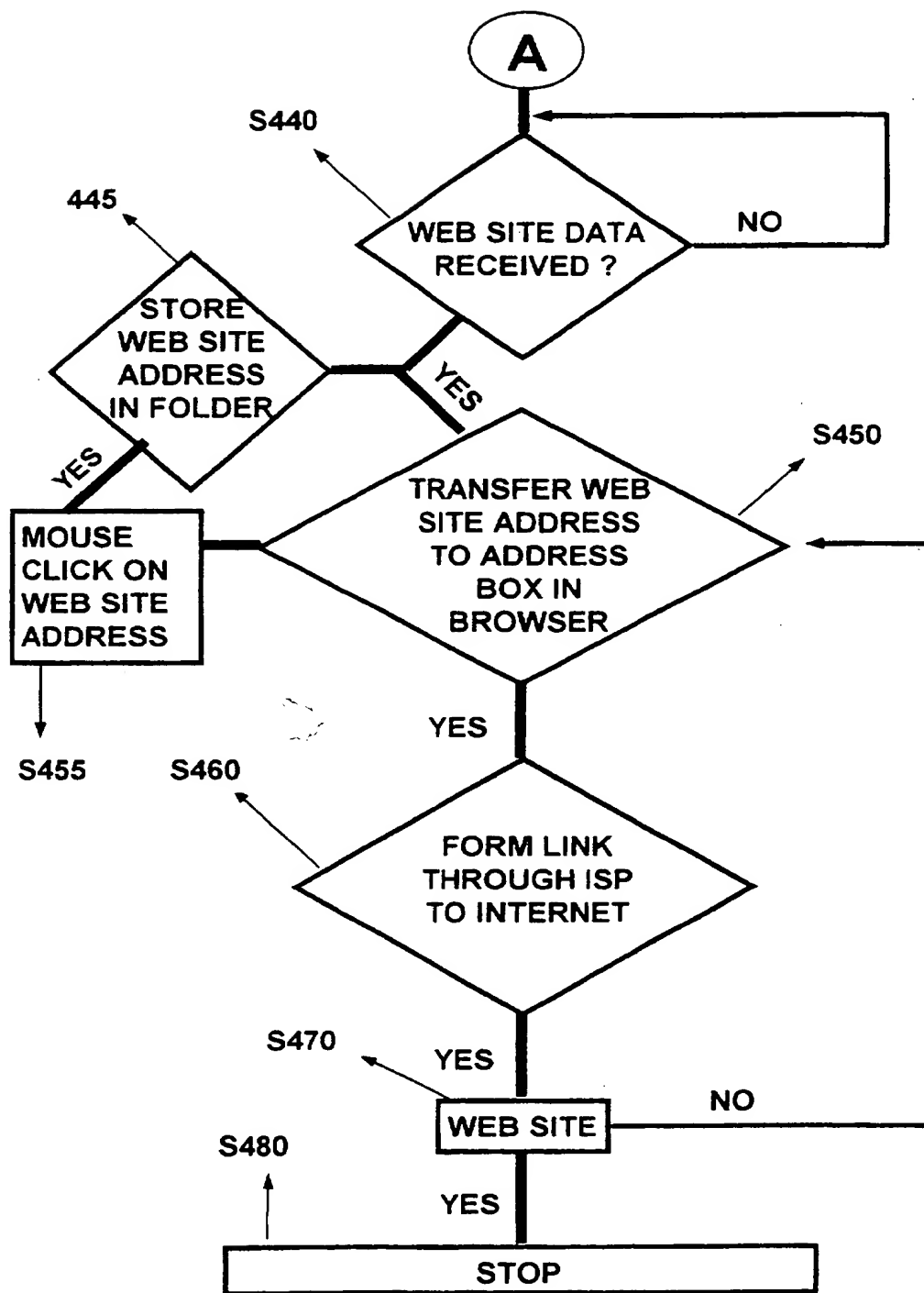


Fig. 11a



**FIG. 11b**

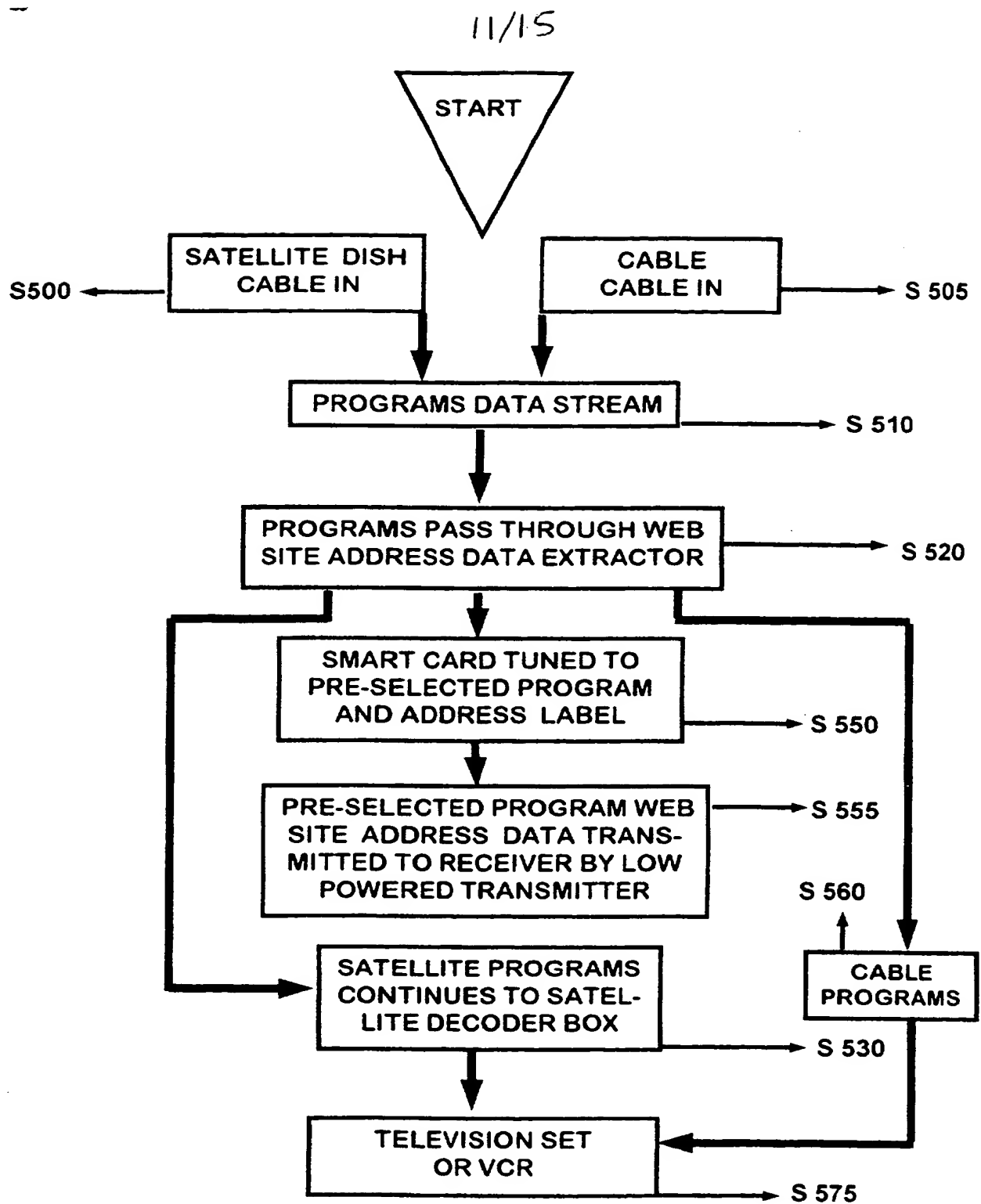


FIG. 12

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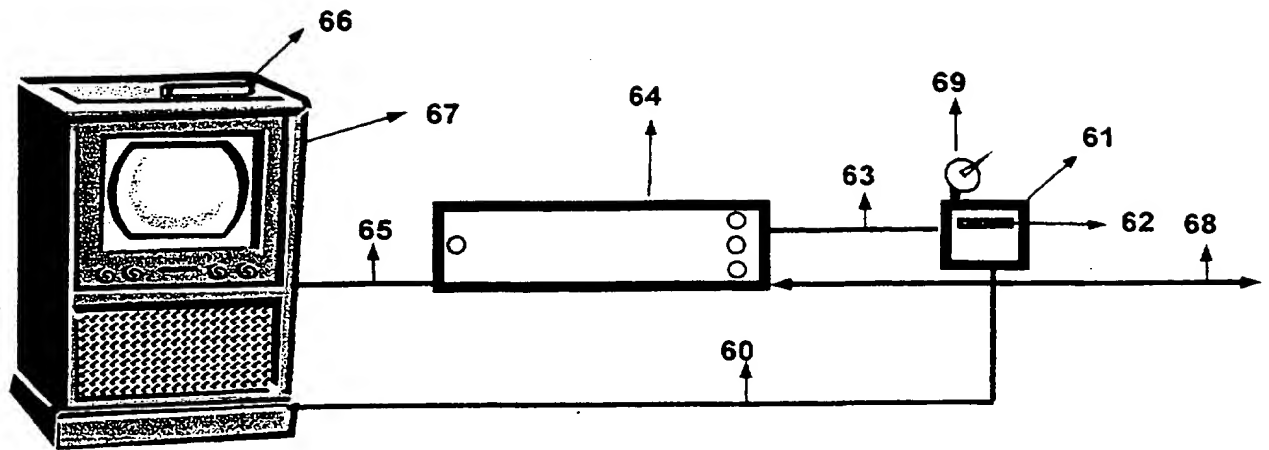


FIG. 13

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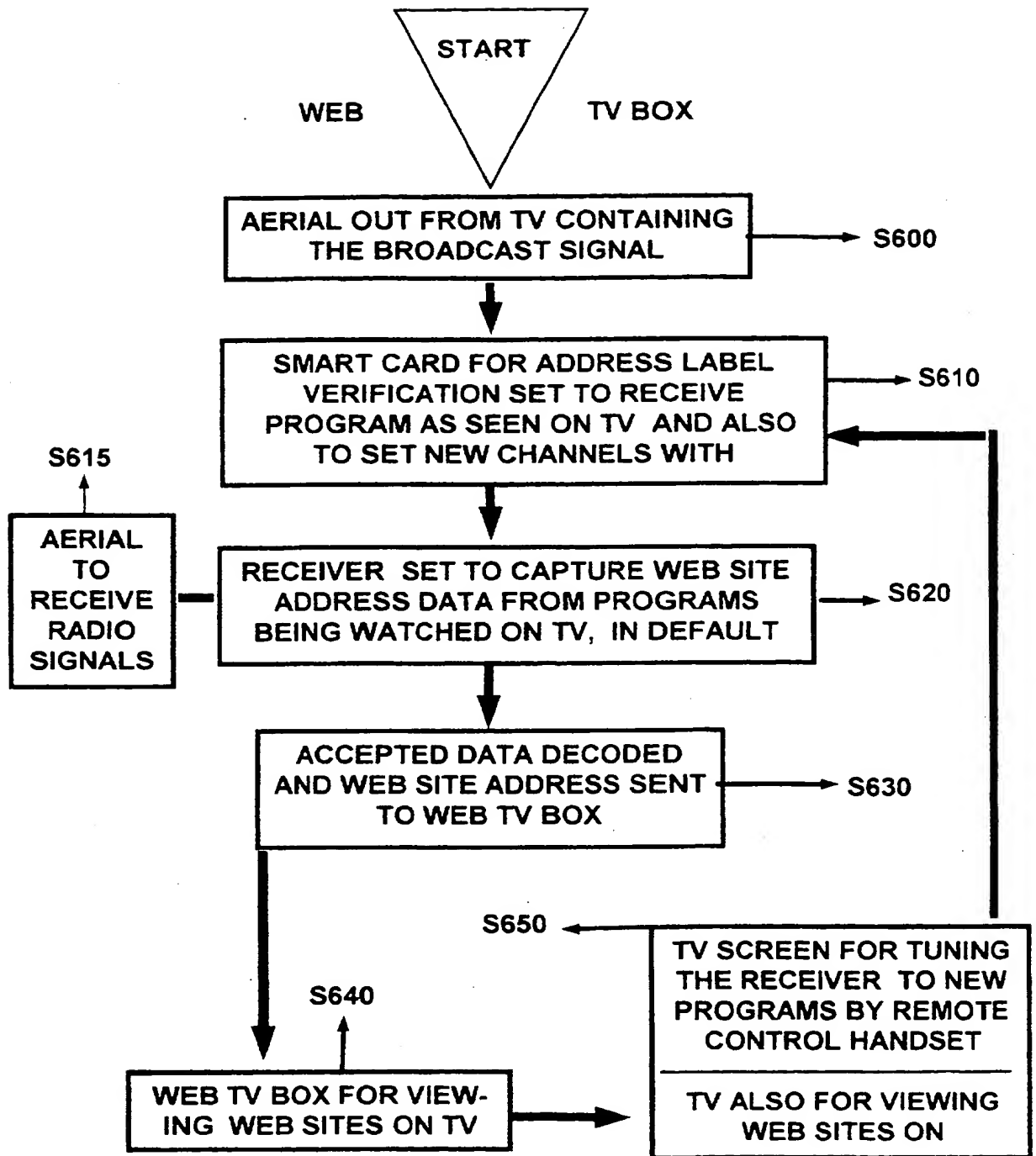


FIG. 14

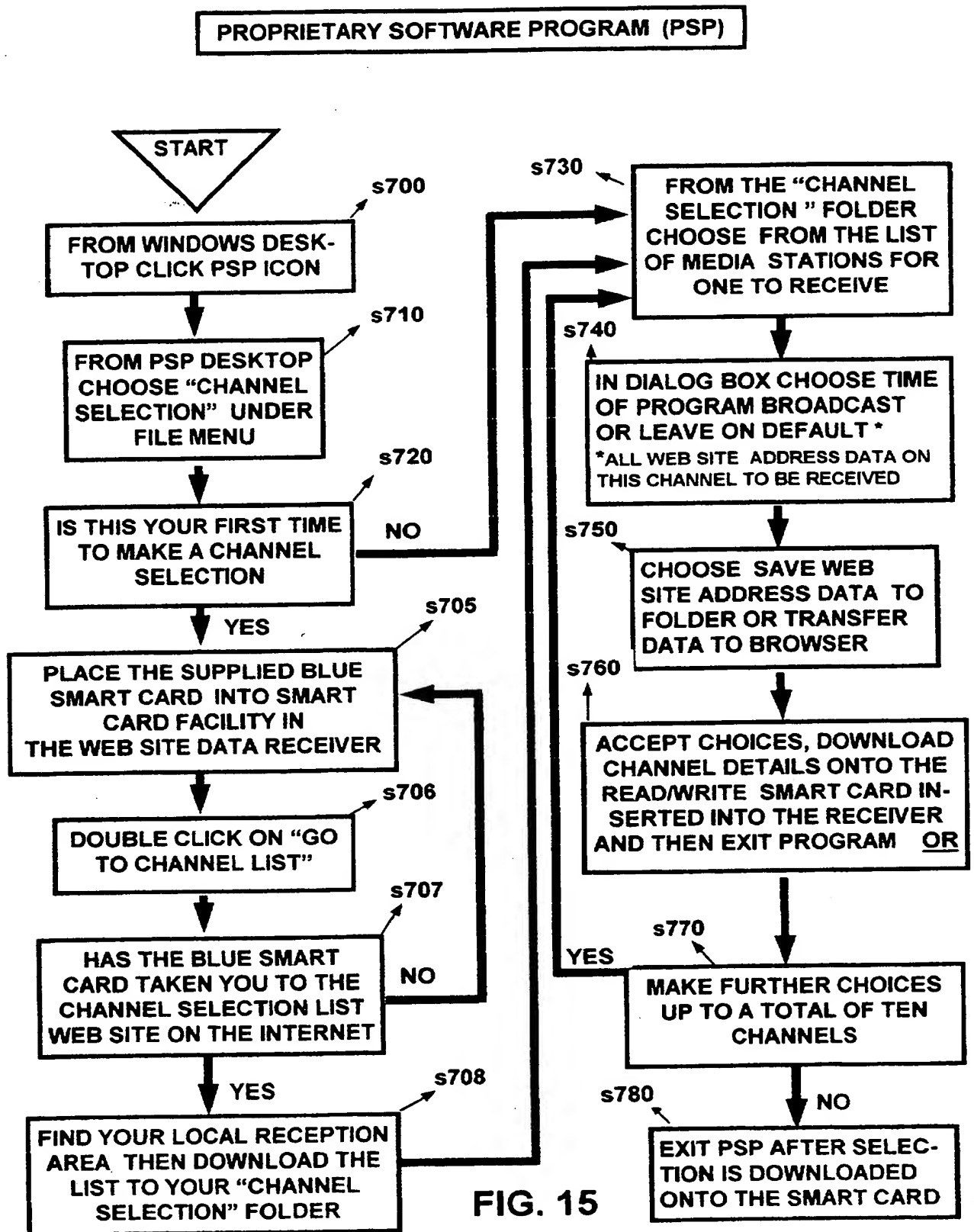


FIG. 15

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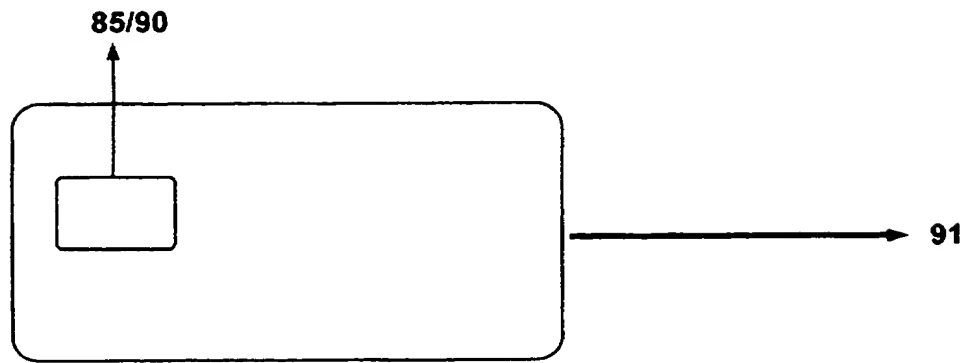


FIG. 16a

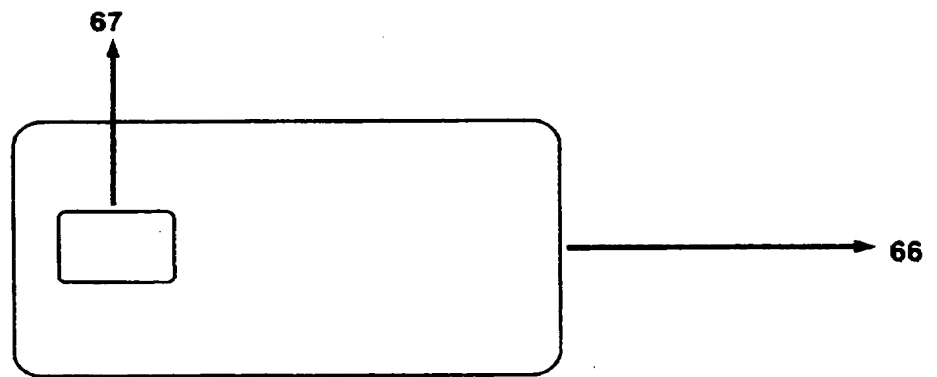


FIG. 16b



METHOD AND APPARATUS FOR ACCESSING WEB SITES ON THE  
INTERNET

The present invention relates to a method and apparatus to enable the transferring of web site  
5 addresses. In particular the present invention relates to novel methods and apparatus for facilitating transfer of web site addresses from remote sources to browser programs in computers.

With the growth of the Internet in recent years, it  
10 has become increasingly difficult for web sites on the Internet to attract visitors. Although to a certain extent Portals automate the process of attracting visitors to specific company's web sites, the success of Portal programs is dependent upon banner advertisements  
15 used to entice visits. If the banners Ads are insufficiently enticing, visitors will not bother to visit the web sites, this is also a very expensive and limited way to get visitors to visit a web site, as only a hand full of advertisers can be seen on any particular  
20 Portal home page at a time. Going through Portal gates can also be very annoying as you are forced to wait for the Portal home page to download before being able to move on to the web site of choice.

It is of course possible for web site addresses to  
25 be shown on television within a particular company's Advertisement or even to be read out over the air during

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a radio broadcast or they could be included on a printed document within a company's advertisement. For example a newspaper or magazine advert for a company will often include reference to that company's web site address.

5           However, all these methods can be unsatisfactory from the company's viewpoint as a user is required to write down or remember the company's web site address and then type in this web site address manually in order to view the company's web site. The necessity of having  
10 to remember the web site address or write it down and then manually input it decreases the chance that anyone viewing the advert will actually visit the web site and also gives rise to the possibility that the address may be incorrectly copied or entered.

15           A further problem arising with the growth of the Internet is that web site addresses are getting longer and more complex as an ever increasing number of companies and individuals vie for domain names and it is not unusual to have the same web site name with a  
20 different domain such as; com, org, net, uk.com, plc.uk, ltd.uk, org.uk, gb.com, uk.net, gov.uk, nhs.uk, mod.uk, sch.uk, co.uk, and uk.co, all belonging to non related parties, making it increasingly more difficult.

          The present invention has been made in view of the  
25 above problems and seeks to provide an alternative method and apparatus for enabling a user to have direct

access to any web site that has been advertised or broadcast.

The present invention also aims to provide a method and apparatus for enabling a user to go directly to a web site with fewer opportunities for human error than  
5 in the prior art.

In accordance with one aspect of the present invention, there is provided a receiver connected to a computer containing a proprietary software program for  
10 generating a communications link between an Internet browser and the receiving system comprising a receiver for receiving radio signals containing web site address data sent from a remote transmitter; interpretation means for decoding the web site address data received by  
15 said receiving means; and linking means for creating a communication link between said receiver and a computer, said linking means forming said link based upon said web site address data as decoded by said decoding means after the correct radio frequency signal and address  
20 label as pre selected having been received thereby activating said receiver.

In accordance to a further aspect of the present invention there includes a receiving means which is arranged to receive web site address data to be used to  
25 form a direct communications link between an Internet browser an Internet Service Provider and a web site.

In accordance with another aspect of the present invention there is provided a smart card that determines which transmissions to accept, if the transmission is on the pre tuned radio frequency and contains the correct address label as set on the inserted smart card then the web site address data will be received by the receiver that generates a command to create a communication link between the receiver and the computer. The receiver then decodes the transmitted web site address data which relates to a specific internet web site and activates the proprietary software program that enables these transmitted web site addresses to be sent directly to the computers default Internet browser to access the web site through an ISP, or to a save folder in the proprietary software program that has been activated so that these web site addresses are saved into the save folder of the proprietary software program.

In accordance with further aspect of the present invention there is provided a method for creating a communications link between a computer and an Internet Service Provider in which a communications link is formed from the decoded web site address data accessed from the save folder in the proprietary software program. By clicking on the web site address in this save folder the web site address is sent to the address box of the default Internet browser that initiates the

link through an ISP to the web site on the Internet.

A further aspect of the present invention uses a smart card in conjunction with the proprietary software program to tune in the desired radio frequency and check  
5 the address label or signature of the transmission, it also provides a method and apparatus in the receiver for decoding web site address data that has been transmitted to a radio signal data receiver that is attached to a computer. The receiver is sufficiently flexible to  
10 enable a user to take advantage of any frequency used to transmit a radio signals in analogue or digital format, to which web site address data can be attached piggyback, for example, AM, PM, MW, SW, UHF, or VHF, by choosing the specific radio signal frequency and address  
15 label from the channel selection folder of the proprietary software program in the computer and transferring it onto the smart card placed in the smart card read/write facility, built into the receiver. The receiver is also able to receive web site address data  
20 from a local source by low powered radio signal broadcasts such as "bluetooth" that mite be used by the proprietary transmitter for web site address data that is extracted from the broadcast signal of satellite or cable transmissions.

25 In a further aspect the present invention is used to receive web site address data transmitted to a web

site data receiver that has been tuned to a pre selected private radio frequency and address label by using a proprietary smart card that is set to a particular radio frequency and address label that can only be accessed by  
5 those in possession of the individual smart card containing the particular Radio frequency and address label. Along with the smart card read/write facility a swipe card reading facility mite also be included in the receiver for web site data access off swipe cards.

10 A further aspect of the present invention is used in conjunction with a WEB TV and mite also be used in conjunction with VHS, and other related recording or storing mediums including any media program transmitted by way of telephone lines or cables where the web site  
15 address data that is encoded can be attached piggyback to a pre recorded or live audio or video program signal. When the audio or video programs are played the web site address data is extracted from the program signal, decoded and transferred directly to the Internet browser  
20 address box or through transmitting the extracted data by low power to the receiver then to the browser program address box to enable accessing the decoded web site on the Internet. Assuming always that the computer with an online connection contains a modem.

25 Embodiments of the present invention will now be described by way of example with reference to the

accompanying drawings in which:

Figure 1 is a schematic diagram of an radio signal transmitter and a radio signal data receiver;

5        Figure 2 is a schematic diagram of a data input, encoding computer a broadcast control centre and a radio signal transmitter;

Figure 3 is a schematic diagram of a radio signal data receiver and decoder;

10       Figure 4 is a block diagram of a radio signal data receiver of figure 3;

Figure 5 is a schematic diagram of a computer and Internet connection to a web site;

15       Figure 6 is a schematic diagram of a satellite and a cable program signal path and web site address data extractor;

Figure 7 is a flow diagram of an radio signal transmitter and radio signal data receiver of figure 1;

20       Figure 8 is a flow diagram of an web site address input device, data encoder for a live broadcast transmission of figure 2;

Figure 9 is a flow diagram of attaching an encoded web site address data to a pre-recorded broadcast transmission of figure 2;

25       Figure 10 is a flow diagram of a radio data receiver, receiving data of figure 3 ;

Figure 11a and 11b are a flow diagram of a computer with proprietary software accessing the Internet of figure 5;

Figure 12 is a flow diagram of satellite and cable program intercepted by a web site data extracting device of figure 6;

Figure 13 is a schematic diagram of a WEB TV box and a web site data receiver and television set;

Figure 14 is a flow diagram of a WEB TV box and web site data receiver television set of figure 13;

Figure 15 is flow diagram of the proprietary software program setting frequency on a smart card for radio signal frequency selection; and

Figure 16a,b are a schematic diagram of a smart card used for radio signal frequency and address label verification.

Figure 1 is a schematic diagram of the first embodiment of this invention comprising a data input devise 1 connected to a computer 2 that contains a proprietary software program used to encode the web site address data for transmission 4 and is also used to encode the address label attached to the data, the computer is connected to a broadcast control centre 3 that administers the program schedule and when the programs are to be transmitted. The broadcast control centre 3 is connected to a radio signal transmitter 4



that broadcasts the program signal. a plurality of radio signal receivers 30 to receive and decode web site address data that is attached to a plurality of computers 22 containing proprietary software that  
5 transfers the decoded web site address data to the address box of the default browser to access the Internet 70 by logging on to an ISP 25 to access the web site 75. The connection to the broadcast control centre 3 from the input device may also be from a remote source  
10 to the broadcast control centre via a network of computers connected by the use of ISDN lines or a modem for direct data input or it may also include data input via the Internet. In accordance to the present invention and how it may be applied, it is now possible for any  
15 company that uses the broadcast media to advertise their services or products to include a reference to their web site address, this encoded web site address data is attached to the broadcast radio signal, and through the use of the proprietary data receiver and software a  
20 potential customer with an online connection can now view the company's web site without having to write, type or remember it, after seeing the advert on television or hearing it on radio, directly or by just clicking the mouse on the saved web site address.

25 Figure 2 is a schematic diagram of a data input, encoding computer a broadcast control centre and

a radio signal transmitter; In a live program broadcast web site addresses of companies advertising on the radio show are entered into the input device 1 connected to a computer 2 that encodes the web site address using a  
5 proprietary software program that also attaches an address label. This encoded data is then sent 11 to the broadcast control centre 3 where it waits until the transmission of the relevant and corresponding information to the web site address sent to broadcast,  
10 this may be an advertisement or company promotion 12 or any other related information that has its own web site address, the encoded web site address data is then activated for transmission and attached to the program signal by piggybacking the program signal 13 being sent  
15 to the transmitter 4 for transmission. Web site address data to be transmitted by satellite and cable would be attached to the pre recorded program tape ready for transmission and transmitted according to Figure 9.

Figure 3 is a schematic diagram of the radio signal  
20 data receiver 30 that includes an aerial 31 to intercept radio frequency signals according to the frequency that has been pre set on the smart card 60 used as a radio signal tuner for desired broadcast station frequency, this smart card is also used to verify that the data  
25 being received is web site address data through the address label attached to the transmission data signal

that is unique to every broadcast stations transmission.  
If the data is accepted then this data is passed on to  
the decoder 32 that decodes it before passing this  
decoded web site address data to a computer by way of a  
5 keyboard wedge 33, for this example.

Figure 4 is a block diagram of a radio signal  
data receiver of figure 3; The radio signal receiver  
comprises an aerial 100 which is arranged to receive  
data containing web site addresses broadcast from a  
10 transmitter. The aerial 100 is connected to a receiving  
module 110 that is used to receive radio frequency  
signals that are broadcast, the broadcast signal that  
the receiving module receives is determined by a tuner  
(in our example we use a smart card) the broadcast data  
15 signal that has been selected by the tuning device is  
then passed on to the decoder module 120 to be decoded  
after the address label is identified. The decoder 120  
then passes the web site address data on to the  
microprocessor 130, the microprocessor 130 notifies the  
20 attached computer that a web site address has been  
received and requests the computer to open the  
proprietary software program that will either pass the  
web site address data to the Internet browser address  
box or save the data in a folder for later use according  
25 to how the web site address data has been pre set to be  
received. The microprocessor 130 then places the web

site address data into the data buffer 140 whilst waiting for a responses from the computer, when the computer responds the web site address data is transferred through the interface connection 150 to the  
5 computer. In a further variation of this block diagram web site address data is received by aerial 100 verified by the inserted smart card into the receiver using a decoder module 120 then after acceptance the receiver 110 passes the web site address data to the  
10 microprocessor 130 that passes the web site address data to the buffer 140 until the interface 150 is activated when the web site address data is then passed to the proprietary software program for decoding in the attached computer.

15 Figure 5 is a schematic diagram of a computer and Internet connection to a web site; The computer 22 contains a proprietary software program 21 that controls all aspects of how the transmitted data is collected, stored and accessed. Once the transmitted data has been  
20 accepted and decoded the proprietary software program 21 creates a link through an ISP to the Internet 80 by placing the web site address into the default browser address box 20 in the computer 22 so as to create a connection to the web site 85 as transmitted.

25 Figure 6 is a schematic diagram of a satellite and a cable program signal path and web site address data

extractor box; Satellite and cable broadcast signals pass through a program cable, the satellite transmission program cable 53 and the cable program cable 52 are connected to a web site address data extractor box 50 that uses a smart card 65 to pre-selected specific channels as transmitted by the satellite or cable broadcasters. When the address label verifier on the smart card 65 in the extractor box 50 recognises an address label it extracts the web site address data from the program signal 53, 52 and forwards this web site address data from the extractor box 50 by low powered transmission 51 to a receiver that is tuned to the low power transmitters frequency by use of a pre set smart card used for low power transmission receiving only. This data is then decoded and transferred to the attached computer to access the transmitted web site. The original satellite programs signals 53, then exit the data extractor box and proceeds to its own decoder box 54 then on to the television set 55, the cable programs signals 52 exit the data extractor box and pass on to the television set 55, neither transmission being affected or having any alteration made to the original broadcast program signal.

Figure 7 is a flow diagram of an radio signal transmitter and radio signal data receiver of figure 1; illustrating the web site address data input device and

computer s5 connected to the broadcast control centre s10 that is connected to a radio signal transmitter s15. A proprietary software program in the input connected computer is used to encode the web site address data and  
5 address label s5 for radio signal transmission s15, the address label is unique to the broadcast station and placed on all web site address data that is transmitted by radio signal s15, the address label distinguishes the data as being web site address data and coming from a  
10 particular broadcast transmitter from that of any other form of data being transmitted by any other transmitter attached to radio signals. The encoded web site address data s5 is transferred to the broadcast control centre s10 where it is attached to a program signal, if it has  
15 not been attached previously. From the broadcast control centre s10 the program with the web site address data attached piggyback on it's radio signal, is sent to the transmitter s15 for transmission. The receiver s20 then receives the radio signal on the frequency as set on the  
20 smart card and the decoder s25 checks the address label code that is also on the smart card before accepting the data signal, if the data signal contains the correct address label it will be accepted by the decoder s25. After the data signal has been accepted it is decoded  
25 s25 and transferred to the computer s30 where the decoded web site address is placed directly into the

default Internet browser address box s35 where a direct link is made through an ISP s40 to the web site s50 on the Internet s60.

Figure 8 is a flow diagram of an web site address input device, data encoder and a live broadcast transmission of figure 2; In a live broadcast the web site address data signal s225 has to be attached to the broadcast program signal s235 on the fly prior to transmission, while the program signal s235 is between the transmitter s250 and the recording studio s205. The web site address s200 is entered into an input device s210 attached to a computer s220 that contains the proprietary software program that encodes the web site address and attaches the address label s225. This web site address data is then transferred to the broadcast control centre s230 that will either send the encoded web site address data to the transmitter s250 attached to any portion of the program signal piggyback s235 indiscriminately, or the broadcast control centre s230 will wait until a specific section of the program signal is being sent to the transmitter s240 and attach the web site address data to the program signal piggyback s250 in sync with the subject matter corresponding to the web site, for transmission s260.

The following example illustrates how this may be utilised. In a live radio broadcast featuring the

interviewing of a group of specialists on arthritis and possible cures and prevention's, there may be included in the discussion relevant web sites that are available on the Internet with regards to the subject of

5 arthritis, cures and prevention, as these web site addresses are mentioned by a member of the discussion group the relevant web site address is entered into the data input device connected to a computer where the relevant web site addresses are encoded before being

10 transferred to the broadcast control centre, where the web site address data is attached to the program signal on the fly so that it is transmitted during the airing of the program. A another example uses local transmission from one of the ever increasing number of

15 public community broadcast facilities that operate in a local transmission area for the benefit of the people of the area. These broadcasts are usually sponsored by local government and large corporations with a vested interest in showing a community spirit, if one of the

20 sponsors were a large supermarket chain for example, they may wish to broadcast information on health and diet to try and encourage organic and healthy eating habits within the community, the local broadcast station may encourage listeners to call in with questions or

25 advice from a panel of dieticians or a group vegetarians sponsoring healthy living through diet. Whilst this



program was being transmitted the supermarket sponsor  
might have specific web site addresses containing the  
benefits of eating organic produce, and also menus for  
using the organic produce. They might also include any  
5 sales or specials being offered by the sponsoring  
supermarket that day on their home shopping by Internet  
web site. The related web site information is  
transmitted by inputting and encoding the web site  
addresses and attaching them to the broadcast signal as  
10 the specific information is mentioned or advice given by  
piggybacking the program signal in accordance to Fig. 2.

Figure 9 is a flow diagram of a radio signal data  
encoder for pre-recorded transmission of figure 2. As up  
to 95% of all TV programs are now taped or pre-recorded  
15 it is a much simpler procedure to attach the web site  
address data to these programs post production prior to  
transmission. To facilitate this example a television  
program will be used, all the relevant web site  
addresses with regards to the pre recorded program s275  
20 are entered into a computer by a keyboard input device  
attached to a computer; these web site addresses are  
then encoded and the address label attached s270 this  
encoded data is then recorded on top of the pre recorded  
programs tape signal s240 by adding the encoded web site  
25 address data while the pre recorded tape is passed  
through a data recording device s230 that adds the data

signal to the pre recorded tapes program, these web site addresses can be recorded in sync with the programs contents or advertisers advert. This pre recorded program is then sent to the broadcast control centre  
5 s240 that schedules the time of broadcast, when it is time the program is sent to the transmitter s250 to be broadcast s260 with all relevant web site address data riding piggyback on the programs signal.

For example advertisers commercials or related  
10 television programs on pre-recorded tape can also be run through a recording device attached to a computer at the broadcast control centre s230 for including encoded web site address data onto this pre recorded program tape. For instance as the specific scenes are viewed with  
15 regards to a web site, the encoded and ready web site address data is laid on to this pre-recorded broadcast tape in sync with the broadcast image that it will now piggyback when transmitted. Encoded web site address data may be added to a programs pre recorded tape any  
20 time after editing and prior to being broadcast. As way of an illustration, a travel show that includes a week of travel through Scotland visiting the malt distilleries showing particularly beautiful areas of Scotland and the local hotels may wish to transmit web  
25 site addresses of the different distilleries as they were being shown along with web site address data on the

local tourist offices and hotels. The program makers may wish to have the web site address data on the program tapes that were sent to different broadcast stations that the program was distributed to, including on the  
5 video sold for home VHS usage.

Figure 10 is a flow diagram of a radio signal data receiver and decoder of figure 3. When a program is being broadcast it has attached to the radio signal encoded web site address data riding piggyback on the  
10 transmitted radio program signal. To receive this web site address data a receiver containing an aerial s300 used to receive radio signals, it will also contain a standby receiving device or preamble s310 that constantly looks for signals on the pre set frequency,  
15 this preamble s310 alerts the receiver when it has intercepted a radio signal s320 on the frequency as pre set on the smart card s340, the decoder then checks that the address label matches s330 the address label as set on the smart card s340 and if it does match the radio  
20 signal the data is accepted and decoded s350 the decoded web site address data then passes on to the microcontroller s360 that transfers the decoded web site address data into the buffer s370 for transfer to the attached computer by way of the interface connection  
25 s380, after the radio signal data has been accepted the receiver returns to the preamble mode s390.

In this example of how this invention could benefit the user, the radio signal transmitter may be a television station broadcasting programs that contain web site addresses that are relevant to the broadcast, such as commercials for companies advertising their products or related information on the program itself, for instance a program on dinosaurs may wish to transmit web site addresses of palaeontology and archaeology digs to encourage visitors online, or a discussion group for those interested to join a dig or it may be something as diverse as a radio program on homeless or missing children that includes a list of web sites that show pictures of the children and contact numbers if anyone had seen them.

Figure 11a,11b are flow diagrams showing the proprietary software program in a computer used to access the Internet according to figure 5. After web site address data has been received and decoded in the receiver it is placed into the data buffer s400 of the receiver whilst the micro-controller activates the proprietary software program in the attached computer that checks that the interface connection s410 is active if not it activates the interface s415 preparing the interface to transmit data to the computer and onto the Internet browser program s420 if activated, if the Internet browser program has not been activated it is

activated s425, the proprietary software program then requests the transfer of the decoded web site address data from the data buffer s430 in the receiver through the interface connection s410 according to the pre-set instructions, when the web site address data is received s440 it is either placed into the default Internet browser address box s450 for immediate web site access or saves the web site addresses in a folder s445 for later access by clicking the mouse on the web site address s455 in the folder it is placed in the default Internet browser address box s450. Once the web site address has been placed into the Internet browser address box s450, the browser then accesses the Internet through an ISP s460 to get online to enable finding the web site s470 on the Internet.

Another embodiment will now be described. In this embodiment the data receiver is the same as has been previously described in relation to the first embodiment with the exception that the receiver interface data access is modified and it also includes a low power data transmitter. The present invention will now be described with reference to Figure 12 which is a flow diagram of satellite and cable broadcast intercepted by a data extractor box of figure 6. Satellite s500 and cable s505 programs are passed through the program cable prior to being attached to either a satellite decoder box s530 or

in cable's case directly to the television set or VCR's aerial-in socket s560. The encoded data extractor and transmitter box s520 is positioned before the program cable enters the television set or VCR s575 to enable  
5 the web site address data passing through this program cable and riding piggyback on the program signal s510 to be detected and extracted from the channels program signal s510 as pre selected on the smart card that is used as a tuner and address label verifier and place in  
10 the data extractor and transmitter box s520. Once the web site address data had been extracted from the program signal it is transmitted using low power transmission such as "bluetooth" s555 to the data receiver that is attached to a computer possible in  
15 another room that has been set to receive the transmission by using a specially pre programmed smart card used only for receiving low power transmission from a source such as "bluetooth" for data transmitted from the data extractor box. Once this web site address data  
20 had been extracted from the channel program signal the program signal would continue through the program cable to either the television set s575 or satellite decoder box s530 with no visible alteration to the original signal. Satellite and cable would have the web site  
25 address data and address label encoding placed on the programs in a similar manner to that illustrated in

Figure 9.as in pre recorded programs.

A further embodiment will now be described. In this embodiment the data receiver receives web site address data the same as been previously described in relation to the previous embodiments with the exception that the receiver interface is modified. The present invention will now be described with reference to figure 13 which is a schematic diagram of a WEB TV box and a web site data receiver connected to a television set; A WEB television box is a unit that fits onto the television set and does not need a computer to access the Internet. In this example a television set is connected to aerial program cable to receive the channel programs broadcast signal. The web site data receiver 61 is attached to the aerial out jack 60 of the television set, the default data receive mode of the smart card in this web site data receiver 61 is set to receive only five local channels with the channel being viewed on the television set 67 the default channel. By use of the smart card read write facility 62 built into the web site data receiver 61 other program channels can be selected from the available channels as shown on the data receivers channel selection web site, on the Internet. This channel selection web site page on the Internet is accessed through using the WEB TV box, in conjunction with placing the blue smart card supplied with the data

receiver into the smart card facility while the WEB TV box was active, once the web site is accessed the blue smart card is replaced by a blank read/write smart card and the channel is selected by use of the remote control device 66 used for the program selection of the television set 67 itself. The chosen channel is downloaded onto the smart card 62 through the aerial out of the television set 60 connected to the web site data receiver 61 by first viewing the available channels on the television screen 67 showing the web site's contents and then selecting the channel that also includes it's unique address label by highlighting the choice then highlighting the send to data receiver, the data receiver recognises the transmission received through the aerial out as being a new channel selection and writes the data to the smart card in the data receiver. Smart cards with pre selected channels that are given away by television or radio stations can also be used. The web site for channel selection also includes radio station broadcasts that use the built in aerial 69 of the web site data receiver 61 to receive web site address data from radio broadcasts. The web site data is decoded in the web site data receiver 61 before being transferred to the WEB TV Box 64 where it is either placed in the WEB TV boxes default browser address box for direct access, or the data is placed in the CPU



buffer of the WEB TV box 64 used to save web sites for later access. The connection to the television set 67 by the WEB TV box 64 is through the input aerial jack 65. The WEB TV is connected to the Internet by either a  
5 phone line 68, cable phone device or a GSM phone.

Figure 14 is a flow diagram of a WEB TV box for accessing the Internet on a regular television set of figure 13. The web site address data receiver s620 is connected to the aerial-out jack s600 of the television  
10 set s650. In this example the default action of the smart card in the web site data receiver s620 is to receive web site address data from the five main channels programs that are being viewed on the television set s650 as being the pre set default mode on  
15 this inserted factory smart card and set to accept any web site address data that is attached to any of the five program channels that are being viewed at the time. This web site address data is decoded by the web site address data receiver s620 after receiving the web site  
20 address data from the aerial out connection of the television set, the web site address s630 is then sent to the WEB TV box s640 so that the web site can be viewed on the television set s650. If there is a facility in the connected WEB TV box s640 for saving web  
25 sites addresses, then a folder would be created so that web site address data can be saved for later access. As

an alternate way to tune additional program channels that web site addresses were being transmitted on or were being broadcast by radio for instance, and using the built in aerial s615, rather than having to accept  
5 only web site addresses of television programs, would be by choosing the radio station frequency from a list shown on the television s650 whilst the WEB TV s640 was active and the web site of the channel selection list was being viewed on the television set s650. It is now  
10 possible to choose the desired program channel of radio or TV from the selection list on screen using the hand held remote controller by scrolling up or down the list to make the selection that is then highlighted and conveyed to the web site data receiver s620 through the  
15 aerial out connection s600 from the television set to the smart card that was inserted into the web site data receiver s620. This web site data receiver s620 mite also be built into future models of WEB TV boxes s640. Online radio networks broadcasting on the Internet mite  
20 also want to add web site address data onto the radio signals broadcast over the Internet that will be decoded from within the WEB TV Box or a computer connected to the Internet so that these web sites mite be viewed in a split screen if desired whilst online.

25        Embodiments of the present invention enable individuals to access web sites more easily since a web

site address no longer needs to be manually input. The present invention may also be used to access search engines or Internet "portals" which may themselves be used to access further web sites. It will be appreciated  
5 that although the present invention has been described in terms of obtaining information from web sites, the present invention could also be applied to receive email addresses.

Figure 15 is flow diagram of the proprietary  
10 software program setting frequency on smart cards for channel selection. The proprietary software program is used to tune the desired frequency and correct address label for receiving web site address data that is riding piggyback on the program signals broadcast at the  
15 selected frequency from the various broadcast stations, this proprietary software enables the tuning in of satellite and cable channels so that data can also be sent piggyback on them. The proprietary software enables the user to choose any programs from either satellite,  
20 cable, broadcast television or radio signal and tune in the desired channel frequency much like setting a video recorder to record a program at a specific time and on a specific channel, the selection can also be set to scan several frequencies for transmitted web site address  
25 data at the same time. The ability to be able to choose from the enormous number of satellite, television and

other channels available is due to the unique ability of the proprietary software program used for tuning and the smart card that has read/write memory making it possible to change the radio frequency and address label with ease. The proprietary software program s700 for tuning a smart card is accessed by clicking on the proprietary software program s710 and then choosing "channel selection" under file menu s720 if this is the first time accessing this "channel selection" menu the blue smart card supplied with the web site address data receiver would be inserted into the smart card facility in the web site address data receiver s705 and in the channel selection window the "go to channel selection list" s706 would be selected, this action activates the default browser and the web site address data receiver channel selection web site appears with a list of local reception area program channel choices s708 these can now be downloaded into the folder called "channel selection". From the list of program channels in the channel selection folder choose the program channel s730 to place in the dialog box, choose time of program broadcast s740, or leave on the default that receives all web site addresses that are broadcast on the selected channel, choose whether the data is to be sent directly to the default browser address box s750 for direct access of the received web site, or the web site

address data is to be saved in the program file for later access. These choices are now accepted s760 and downloaded to the smart card in the web site address data receiver, or up to another nine program channels  
5 can be added s770 by down loading the choices to the smart card and then choosing to exit the channel selection folder s780. A reference number system could be established to program channels. This proprietary software program also enables the receiver to receive  
10 low power transmissions for internal transmission making it possible using the reference number system to select a program frequency on the smart card by phone if a attachment were added, for when you had forgotten to pre-select the channel before going out. It is also  
15 possible to do away with the smart card for the channel selection and address label identifying and perform these function from within the receiver by using a computer and the proprietary software program to set the internal microprocessor built into the receiver to a  
20 radio frequency and also verify the address label. It will also be possible using the remote control handset to make channel and frequency choices as in the WEB TV box system by watching the TV screen and selecting the program channel frequency or satellite and cable  
25 channels and related address labels directly by choosing on screen when everything is built into the satellite

receiver box or television set that that is connected to the Internet, it will also be possible by including a receiver chip and the proprietary software program for radio frequency tuning and address label decoding along  
5 with a data decoder chip and memory module to save the selected web sites addresses for later access or a access a screen splitter for immediate access to the web site while connected to the Internet, and watching the related program on television.

10 Figure 16a is a schematic diagram of a smart card used for frequency tuning to a pre selected broadcast signal in a data receiver of figure 4. The memory chip 85 on the smart card is a read/write chip so that it may be changed according to the program selected at the  
15 time, or programs if more than one program were selected. There is also a read only chip on smart cards set to a specific broadcast programs that were not meant to be altered. As an example of how this type of smart card mite be used, is through distribution of the smart  
20 cards by a radio station that has smart cards that are read only made up with the radio stations frequency and address label for individuals to insert into their web site address data receivers so that only web site address data from the station who's smart card is in the  
25 web site data receiver is received, this may be tied in with a competition or lucky number to who ever is first

to guess the number after accessing the web site that has been transmitted on the frequency set on this given away smart card. A further example of smart cards pre set to a frequency and address label mite be in this  
5 instance set to the local band frequency and address label of a local advertising company that has advans that drive around a Town continually broadcasting local advertisers services and products for sale to the pre set frequency on the smart cards that have been given  
10 away, the pre recorded program tape is looped so that it continually broadcasts the same advertisements on a frequency that is free of licensing or franchise fees, this broadcasting may also be from cars, buses trains and any other transport facility and tied in to local  
15 sales and events that can be viewed on the Internet. The smart card read/write facility built into the receiver is a multipurpose read/write smart card facility in that it can be used to tune smart cards to the desired frequency and address label to receive web site address  
20 data, as well as being used by other smart card services, including being used to download money to, on a proprietary smart card issued by a bank, or it mite be used as a way to pay for goods or services on the Internet securely, by using a bank supplied credit smart  
25 card that had all the personal banking details encrypted on the memory chip 90 of the smart card 91 for security,

or a personally encrypted smart card may be used as a form of identification when inserted into the receiver when online and visiting secure sites only accessible to those with personalised smart cards. However, whilst  
5 utilising the smart card facility to transact other services it would not be possible to receive any web site addresses.

Figure 16b is a schematic diagram of a smart card used for satellite and cable broadcast data interception  
10 of figure 6. The read/write smart card used to receive the satellite and cable channel programs web site address data can also be set in the receiver attached to the computer used as a smart card tuning device to select the channel and program on satellite or cable to  
15 receive the web site address data from, this could be by using a system of numbers representing each available channel or program the same could be used for each channel frequency selection. Once the channel, program and address label have been set on the memory chip of  
20 the smart card, the smart card is then inserted into the data extractor box according to Figure 6. A read only smart card pre set to the internal low power transmitter frequency is placed in the receiver attached to a computer to enable direct transmission of all web site  
25 address data as extracted from the program signal by the extractor box.



Although the previous embodiments have been described in which reference has been made to television, satellite, cable and local radio broadcast facilities all conveying web site address data to enable  
5 accessing web sites via the Internet, it will be appreciated that the present embodiment is equally applicable to any Internet related media broadcast where the web site address data can ride piggyback on the program signal, all web site address data transmitted by  
10 any of the mentioned means can be in either analogue or digital format. It will also be appreciated that although reference has previously been made to the downloading of web sites address data the present application is equally applicable to the transfer and  
15 receiving of any web site address data being transmitted. It will also be appreciated that the present invention could also apply to email address data being transmitted, the present invention is only concerned with the email address data and excludes any  
20 message portion of email, the receiver only accepting the email addresses. An example would be the nation wide television or radio transmission of the email address productsafety@biltongbros.com to enable individuals to quickly respond to a product safety alert  
25 for baby food that may be contaminated and the company would like to hear from anyone who has had a problem.

Thereby, zeroing in on the distribution area affected.

Although reference has previously been made to reading and saving of web site address data, it will be appreciated that this data mite be stored on a magnetic  
5 tape or CD or it may be sent to a remote host when a connection to the remote host is made for storage.

Although reference has previously been made to an addressing system in which a computer automatically generates a communications link to a remote server upon  
10 receipt of web site address data from a receiver, it will be appreciated that web site address data mite be stored in the computer to generate a communications link to a remote server later. It will further be appreciated that web site address data for a plurality of remote  
15 server stations mite be stored and a communications link may be generated on the basis of selection of stored web site address data.

Although previous embodiments have been described in which reference is made to storing web site address  
20 data it will be appreciated that although reference has been made to storing information in a folder in the proprietary software program in a computer that any recording format which enables address data to be stored mite be used, such as optical or magneto- optical  
25 recording methods.

Although previous embodiments state that data is

stored in a folder in the proprietary program of the computer it will be appreciated that the web site address data receiver might have a separate power supply from a battery for instance to enable the receiver to  
5 receive web site address data when the computer is turned off, for example a commuter driving to work who enjoys a radio program called desert island web sites and would like to access the discussed web sites when returning home, would set the receiver to the desired  
10 radio frequency and address label, then access the web site addresses that were saved in the microprocessor in the web site address data receiver on returning home.

Although previous embodiments have been described in which reference is made to a smart card used as a  
15 frequency tuning and address label verifying device placed in the smart card facility built into the web site address data receiver it must be appreciated that this procedure of software frequency tuning and address label verification is possible on a microprocessor built  
20 within the web site address data receiver without the use of a smart card. A manual tuning device might also be used and included in some form of manual variation.

Although previous embodiments have been described in which reference is made to the web site address data  
25 receiver built as a stand alone unit it must be appreciated that the operation that the web site address

data receiver performs in receiving and decoding web site address data mite also be included within the body of any of the device systems that can be attached to the web site address data receiver and utilise the web site  
5 address data that is transmitted, both as a carrier of the encoded web site address data signal and also as a receiver of the encoded web site address data carrying signal.

The encoded address label is unique to all media  
10 program transmitters and broadcasters, the following is a list of relevant and different transmission and broadcast sources some with their own unique radio signal frequency; 1.AM radio, 2.FM radio, 3.MW radio, 4. UHF TV, 5.VHF TV, 6.satellite transmission, 7.Cable  
15 transmission, 8.Web TV, 9.local broadcasters, 9.Low Power transmission, 10. Extracted from VHF tape, 11. Extracted from CD/DVD, 12. Telephone line media delivery systems, 13.Internet Radio broadcasts. 14. Internet TV broadcast 15. GSM media delivery systems.

**CLAIMS**

1. An information transfer system, comprising:
  - a plurality of Internet addressing apparatus,
  - 5 said apparatus each comprising:
    - a computer having a web browser stored therein;
    - and
    - a receiver for receiving radio signal data from
    - a transmitter; and
  - 10 a plurality of servers having stored therein web sites, said web sites all having addresses; and
  - a plurality of transmitters which are separate from said computers, said receivers and said servers, said transmitters having associated therewith radio
  - 15 signals attached thereon web site address data riding piggyback on said radio signals, in a form decodable by said receivers, said web site address data defining the address of a predetermined web site;
  - wherein each of said transmitted radio signals
  - 20 further comprises:
    - means for causing said receiver to receive and decode said web site address data attached to said radio signal for a web site from said transmitter in the form of a web site address data and to transfer
    - 25 said web site address data to the address box of a web browser; and means for causing said web browser to

address said web site utilising the web site address data transferred thereto from said receiver and to receive information transferred to said computer from said web site in response to said addressing of said  
5 web site.

2. An information transfer system comprising:

A plurality of Internet addressing apparatus, said apparatus each comprising:

10 A computer having a web browser stored therein;  
and

A receiver for receiving radio signal data from a transmitter attached to a radio signal;

And a plurality of servers having stored therein  
15 web sites, said web sites all having addresses; and

A plurality of transmitters transmitting radio signals which are separate from said computers and said receivers, a portion of said radio signals comprising a data carrier which has encoded thereon web site address  
20 data in a form receivable by said receiver, said web site address data defining the address of a predetermined web site;

Wherein each of the said addressing apparatus further comprises:

25 Means for causing a said receiver to receive said web site address data for a web site from said

transmitted radio signal and to transfer said web site address data to the address box of said web browser and a means for causing said web browser to address said web site utilising the web site address data transferred thereto from said receiver and to receive information transferred to said computer from said web site in response to said addressing of said web site.

3. An information transfer system according to claim 10 1 or 2 in which said receivers are adapted to receive web site address data from radio television satellite, cable or Internet radio and television when said web site address data is broadcast or transmitted on said data carriers in broadcast data form attached to a 15 radio signal.

4. A process according to any of claims 1 to 3, in which said web site data receiver is adapted to decode web site address data in radio signal data form and 20 said web site address data is attached on said radio signal in either digital or analogue form.

5. A process according to any of claims 1 to 3, in which said web site address data receiver is adapted, 25 utilising a computer program in the computer to receive any radio frequency transmitted by use of a smart card

placed in the smart card facility in the web site address data receiver, the said smart card is used to tune in said radio frequency, said smart card also contains an address label verifier that verifies the  
5 transmitted radio signal received by said web site address data receiver is web site address data, and that the web site address data is attached on said radio signal in the form of web site address data.

10 6. A process according to any preceding claim, wherein said web site address data carrier comprises an analogue or digital signal.

7. A process according to any preceding claim, wherein  
15 said causing step comprises the steps of:

activating a browser program provided in said computer; and inputting said address data transferred to said computer into said address box of browser program to cause said computer to address said web  
20 site.

8. A process according to any preceding claim further comprising the step of determining whether said address data transferred to said computer relates to a direct  
25 communications link to a web site, wherein if said data relates to a direct communications link, said transfer



of information from said web site is performed via said direct communications link.

9. A process according to any preceding claim, wherein  
5 said radio signal has attached thereon further related data to web site address data in a form decodable by said web site address data receiver, further comprising the steps of receiving said further data from said radio signal;

10           transferring said related web site address data to said computer; and storing said data in conjunction to said web site address data in a folder for later access.

15 10. A process according to claim 9 wherein said web site is arranged to transmit further information following the receipt of said further data.

11. A process according to claim 9 or 10 wherein said  
20 web site is arranged to store account data, wherein said web site is arranged to update said account data utilising receipt of said further data.

12. A radio signal having attached thereon web site  
25 address data in a form receivable by a said web site data receiver for use in a process in accordance

with any preceding claim.

13. A television, radio or other broadcast media signal having attached or associated therewith a radio  
5 signal in accordance with claim 12.

14. A web site address data receiver for connection to a computer, for receiving data from a radio data signal in accordance with claim 12, said web site address data  
10 receiver comprising:

means for causing a web browser in a computer to address a web site utilising address data received from a radio data signal transmission separate from said computer and said web site data receiver.

15

15. A web site data receiver in accordance with claim 14, said web site data receiver further comprising:

means for determining whether web site address data relates to a direct communications link, said  
20 means being arranged to cause a browser in a computer to transfer information via said direct communications link, if said means determines said data relates to a direct communications link.

25 16. A web site data receiver in accordance with claim 14 or claim 14, said web site data receiver further

comprising:

means for causing a browser in a computer to transfer further data received by said web site data receiver from a web site address data transmission  
5 separate from said computer and said web site data receiver to a web site.

17. Apparatus for obtaining information from a predetermined web  
10 site via the Internet, comprising:

a computer having a web browser stored therein;  
a web site data receiver connected to said computer;  
a transmission which is separate from said computer and  
15 said web site data receiver, said radio signal transmission having associated therewith or attached thereto a data signal which has thereon web site address data in a form decodable by said web site address data receiver, said address data defining the  
20 address of said predetermined web site;

means for causing said web site address data receiver to receive said web site address data from said data signal by firstly ascertaining that the radio signal is for the radio frequency as set on the smart  
25 card frequency tuner and contains the correct address label before transferring said web site address data

from said web site data receiver to attached computer to decode said web site address data and then access said web browser in said computer; and

means for causing said web browser in said  
5 computer to address said web site utilising the web site address data transferred thereto by said computer and to receive information transferred to said computer from said web site in response to said addressing of said web site.

10

18. Apparatus for obtaining information from a predetermined web site via the internet, comprising:

a computer having a web browser stored therein;

a web site data receiver connected to said

15 computer;

a transmitter which is separate from said computer and said web site data receiver, a portion of said transmitted radio signal comprising a data carrier which has thereon web site address data in a form  
20 decodable by said web site data receiver, said web site address

data defining the address of said predetermined web site;

means for causing said web site data receiver  
25 to decode said web site address data from said radio signal and to transfer said web site address data from

said web site data receiver to said web browser in said computer; and

means for causing said web browser in said computer to address said web site utilising the address data transferred thereto from said web site data receiver and to receive information transferred to said computer from said web site in response to said addressing of said web site.

10 19. Apparatus according to claim 17 or 18, in which said web site data receiver is adapted to receive data in radio signal data form and said web site address data is attached on said radio signal transmission in data form.

15

20. Apparatus according to claim 17 or 18, in which said web site data receiver is adapted to receive satellite, cable, Internet radio and TV broadcast data and said web site address data is transmitted on said data carrier in the form of broadcast data signal.

21. Apparatus according to any of claims 17 to 20, wherein said web site address data comprises a transmission by radio signal

25

22. An broadcast transmitter having transmitted

thereon means for generating within a computer said means for causing a web browser in a computer to address a web site utilising web site address data transferred thereto from a web site data receiver in  
5 accordance with any of claims 17 to 21.

23. A broadcast radio signal in accordance with claim 22 having attached thereon means for generating within a computer means for determining whether said web site  
10 address data transferred thereto from a web site address data receiver relates to a direct communications link, said means being arranged to cause said browser to transfer information via said direct communications link, if said means determines said data  
15 relates to a said direct communications link.

24. A radio signal transmission in accordance with claims 23 or 23 having attached thereon a data signal containing web site address data as a means for causing  
20 a browser in a computer to access a web site from the web site address data transferred thereto from a web site data receiver.

25. A radio frequency tuning device comprising a  
25 smart card in accordance with any of claims 22 to 24 for receiving the correct web site address data from

the transmitter as pre determined by utilising the smart card as a tuning device and address label verifier when placed in the smart card facility built into the web site data receiver.

5

26. A process for transmitting and receiving web site address data to obtain information from a predetermined web site via the internet, substantially as herein described with reference to the accompanying  
10 description and drawings.

27. Apparatus for transmitting and receiving web site address data to obtain information from a predetermined web site via the internet, substantially as herein  
15 described with reference to the accompanying description and drawings.

20

25

Amendments to the claims have been filed as follows

48

#### AMENDED CLAIMS

1. A system for receiving web site address data attached to a radio signal by using a smart card with the radio frequency of a predetermined radio signal transmitter set or tuned onto said smart card to enable receiving said web site address data as transmitted from said transmitter and riding piggyback on said radio signal, said smart card parses said radio signal frequency and also verifies address label data to enable receiving web site address or related data from a pre selected radio signal transmission or broadcast independent of having to receive the broadcast programs radio signal whose radio frequency is set or tuned on said smart card, comprising:

A radio signal data receiver containing a Smart Card read/write facility used for writing or setting radio signal frequency and address label verifying data onto a smart card inserted into said smart card read/write facility to enable the receiving of web site address data as transmitted or broadcast on any radio signal frequency as set on said smart card,

A radio signal data receiver containing a Smart Card read/write facility used for reading or receiving web site address data as transmitted on any radio signal frequency that is predetermined and set on a smart card inserted into said smart card read/write facility to enable receiving web site address data transmitted or broadcast on said radio signal frequency as set on said smart card, and

a software program for parsing radio signal frequency settings and address label data that can be downloaded from a dedicated web site on the Internet containing a list of all available radio frequencies and address label data for any given local footprint, determined by post code or area code.

and

a plurality of receivers containing a plurality of smart cards inserted into a plurality of smart card facilities in said receivers for receiving web site address and related data as transmitted,

a plurality of Internet addressing apparatus, said apparatus each comprising:

a web browser stored therein; and



a plurality of servers having stored therein web sites, said web sites all having addresses; and

a plurality of transmitters which are separate from said Internet addressing apparatus, said receivers and said servers, said transmitters having  
 5 associated therewith radio signals attached thereon encoded web site address data riding piggyback on said radio signals, in a form decodable by said receivers, said web site address data defining the address of a predetermined web site;

wherein each of said transmitted radio signals further comprises:

10 address label data for causing said receiver to receive web site address data attached to a specific radio signal and then decode said web site address data and save or transfer said web site address to the address box of a web browser; and

a means for causing said web browser to address a web site utilising the  
 15 web site address transferred to said address box of said browser program from said receiver and a means to form a link to the Internet to enable receiving information transferred from said web site in response to said addressing of said web site.

20 2. A system for receiving radio signal data in the form of web site address or email address data as transmitted on a predetermined radio frequency using a smart card to parse said radio frequency settings including address label settings, comprising:

A radio signal data receiver containing a Smart Card read/write facility  
 25 used for writing or setting radio signal frequency and address label verifying data onto a smart card inserted into said smart card read/write facility to enable receiving of web site address data or email address data as transmitted or broadcast on any radio signal frequency as set on said smart card,

A radio signal data receiver containing a Smart Card read/write facility  
 30 used for reading or receiving web site address or email address data as transmitted on a radio signal frequency that is predetermined and set on a smart card inserted into said smart card read/write facility to enable receiving web site

address data as transmitted or broadcast on said radio signal frequency set on said smart card,

and

5 a software program for parsing radio signal frequency settings and address label data that is downloaded from a dedicated web site on the Internet containing a list of all available radio frequencies and address label data for any given local footprint determined by post code or area code.

and

10 a plurality of receivers containing a plurality smart cards inserted into a smart card facility for receiving web site address data and email address data as transmitted,

a plurality of Internet addressing apparatus, said apparatus each comprising:

a web browser stored therein; and

15 a plurality of servers having stored therein web sites, said web sites all having addresses; and

a plurality of transmitters which are separate from said Internet addressing apparatus, said receivers and said servers, said transmitters having associated therewith radio signals attached thereon web site address data and email address data riding piggyback on said radio signals in a form decodable by said receivers, said web site address data or email address data defining an address of a predetermined web site or email address;

20 wherein each of said transmitted radio signals further comprises: address label data for causing said receiver to receive web site address data attached to a specific radio signal and then decode said web site address data and save or transfer said web site address data to the address box of a web browser; and

25 a means for causing said web browser to address the web site utilising the web site address transferred thereto from said receiver and to receive information transferred from said web site in response to said addressing of said web site.

30

3. A Smart Card radio frequency tuner and address label verifying system according to claim 1 or 2 in which said Smart Cards are adapted to receive web site address data or email address data from radio, television, satellite, cable, Internet radio, television or GSM signal device when said address is broadcast or  
5 transmitted riding piggyback as data attached to a radio signal.

4. A system according to any of claims 1 to 3, in which a receiver is adapted to use a Smart Card to place the frequency and validate the address label of a radio signal transmission containing web site address data or email address data  
10 and said web site address data or email address data is attached riding piggyback on said radio signal in either digital or analogue form.

5. A system according to any of the preceding claims 1 to 4, in which the web site address data receiver is attached to a computer containing a software  
15 program for parsing a list of available radio frequencies downloaded from the Internet for selecting from according to location, the desired radio frequency settings are then transferred to a smart card that may then be used by any smart card reading facility built into a radio signal receiver, said smart card also carries an address label verifier used to verify that the transmitted radio signal data  
20 attached to said radio signal is web site address or related data.

6. A read only smart card containing pre set or tuned radio signal frequency and address label verification data for insertion into a data receiver to enable receiving web site address data from one or more transmitters or broadcasters  
25 whose radio frequency is permanently pre set on said smart card.

7. A process according to any preceding claim, wherein said causing step for viewing a web site comprises the steps of:  
activating a browser program provided in a computer, WEB TV or GSM  
30 system; inputting said decoded web site address into the address box of the said browser program to cause said computer, WEB TV or GSM system to address said web site on the Internet.

8. A process according to any of the preceding claims further comprising the step of determining whether said address data transferred to said computer relates to a direct communications link to a web site, wherein if said data relates to a direct communications link, said transfer of information from said web site is performed via said direct communications link.

9. A process according to any preceding claims, wherein said radio signal has attached thereon further related data to web site address data in a form decodable by said web site address data receiver, further comprising the steps of receiving said further data from said radio signal;

transferring said related web site address data to a computer from said receiver; and storing said data in conjunction to said web site address in a folder for later web site access by clicking on said web site address.

10. A system according to any of the previous claims where email address data is received according to the radio frequency setting on a smart card placed in a receiver and said email address is transferred to a computer, WEB TV or GSM system to enable the sending of email to said email address.

11. A process according to claim 9 wherein said web site is arranged to transmit further information following the receipt of said further data.

12. A process according to claim 9 or 11 wherein said web site is arranged to store account data, wherein said web site is arranged to update said account data utilising receipt of said further data.

13. A radio signal being analogue or digital having attached or riding piggyback thereon web site address data and related data or email address data in a form receivable by and decoded by said data receiver for use in a process in accordance with any of the preceding claims 1 to 12.

14. A system where AM radio, FM radio, MW radio, UHF TV, VHF TV, satellite transmission, Cable transmission, Web TV, local broadcasters, Low Power

transmission, data extracted from VHF tape, data extracted from CD/DVD, Telephone line media delivery systems, Internet Radio broadcasts, Internet TV broadcast or GSM media delivery systems or any other broadcast media signal having attached or associated therewith web site address data and related data  
5 or email address data riding piggyback on a radio signal whose frequency is set on a smart card in accordance with any of the previous claims 1 to 13.

15. A web site address data receiver for connection to a computer, for receiving data from radio data signals in accordance with claim 14, said web site  
10 address data receiver comprising:

means for causing a web browser in a computer to address a web site utilising web site address data received from a radio data signal transmission separate from said computer and said web site data receiver.

15 16. A web site data receiver in accordance with claim 14 to 15, said web site data receiver further comprising:

means for determining whether web site address data relates to a direct communications link, said means being arranged to cause a browser in a computer to transfer information via said direct communications link, if said  
20 means determines said data relates to a direct communications link.

17. A web site data receiver in accordance with claim 14 to 16, said web site data receiver further comprising:

means for causing a browser in a computer to transfer further data received  
25 by said web site data receiver from a data transmission separate from said computer and said web site data receiver to a web site.

18. An application to receive radio signal data using a smart card to set frequency and address label verification on, to enable the receiving of any  
30 transmitted or broadcast radio signal that web site address data riding piggyback can be received, said smart card parses said radio signal frequency including address label verification to enable the receiving of web site address data from any pre selected radio signal transmission or broadcast independent of receiving

the broadcast programs signal whose frequency and address label is set on said smart card, comprising:

5 A radio signal data receiver for receiving radio signal data only containing a Smart Card read/write facility used for writing or setting radio signal frequency and address label verifying data onto a smart card inserted into said smart card read/write facility to enable the receiving of web site address data as transmitted or broadcast on any radio signal frequency as set on said smart card,

10 A radio signal data receiver for receiving radio signal data only containing a Smart Card read/write facility used for reading or receiving web site address data as transmitted on any radio signal frequency that is predetermined and set on a smart card inserted into said smart card read/write facility to enable receiving web site address data transmitted or broadcast on said radio signal frequency as set on said smart card, and

15 a software program for parsing radio signal frequency settings and address label data that is downloaded from a dedicated web site on the Internet containing a list of all available radio frequencies and address label data for any given local footprint, determined by post code or area code.

wherein each of said transmitted radio signals further comprises:  
20 address label data for causing said receiver to receive web site address data attached to a specific radio signal and then decode said web site address data and save or transfer said web site address to the address box of a web browser; and

25 a means for causing said web browser to address the web site utilising the web site address transferred to said address box of said browser program from said receiver and a means to activate an ISP if not already active to form a link to the Internet to enable receiving information transferred from said web site in response to said addressing of said web site.

19. An process to receive radio signal data using a smart card to set  
30 frequency and address label verification on, to enable the receiving of any transmitted or broadcast radio signal that web site address or related data and email address data riding piggyback can be received, said smart card parses said radio signal frequency including address label verification to enable the

receiving of said data from any pre selected radio signal transmission or broadcast independent of receiving the broadcast programs signal whose frequency and address label is set on said smart card, comprising:

5 A radio signal data receiver containing a Smart Card read/write facility used for writing or setting radio signal frequency and address label verifying data onto a smart card inserted into said smart card read/write facility to enable the receiving of web site address or related data and email address data as transmitted or broadcast on any radio signal frequency as set on said smart card,

10 A radio signal data receiver containing a Smart Card read/write facility used for reading or receiving web site address data or related data and email address data as transmitted on any radio signal frequency that is predetermined and set on a smart card inserted into said smart card read/write facility to enable receiving web site address data transmitted or broadcast on said radio signal frequency as set on said smart card, and

15 a software program for parsing radio signal frequency settings and address label data that is downloaded from a dedicated web site on the Internet containing a list of all available radio frequencies and address label data for any given local footprint, determined by post code or area code.

wherein each of said transmitted radio signals further comprises:

20 address label data for causing said receiver to receive web site address data or email address data attached to a specific radio signal and then decode said web site address data or email address data and save or transfer said web site address or email address data to a computer, WEB TV, or GSM system; and

25 a means for causing a browser program in a computer, WEB TV, or GSM system to address a web site utilising the web site address transferred to the address box in said browser program and a means to form a link to the Internet to enable receiving information transferred from said web site in response to said addressing of said web site.

30

20. Apparatus according to claim 18 or 19, in which said web site data receiver is adapted to receive data in radio signal data form and said web site

address or related data and email address data is attached on said radio signal transmission or broadcast in data form.

21. Apparatus according to claim 18 or 19, in which said web site address  
5 data receiver is adapted to receive radio signal data from satellite, cable, Internet radio, TV broadcast, radio broadcast or GSM system and said data is transmitted on said data carrier in the form of web site address and related data or email address data for decoding by said receiver.

10 22. A process according to claim 18 or 19, in which said web site data receiver is adapted to receive satellite, cable, Internet radio, TV broadcast, radio broadcast or GSM signals and said web site address and related data or email address data is transmitted on said data carrier in the form of radio data signal and decoded by said receiver

15

23. Apparatus according to any of claims 18 to 22, wherein said web site address data comprises a transmission by radio signal in analogue or digital form.

20 24. A broadcast transmitter having transmitted thereon means for generating within a computer said means for causing a web browser in a computer to address a web site utilising web site address data transferred thereto from a web site data receiver in accordance with any of claims 18 to 23.

25 25. A broadcast radio signal in accordance with claim 22 having attached thereon means for generating within a computer means for determining whether said web site address data transferred thereto from a web site address data receiver relates to a direct communications link, said means being arranged to cause said browser to transfer information via said direct communications link, if  
30 said means determines said data relates to said direct communications link.

26. A radio signal transmission in accordance with claims 23 or 25 having attached thereon riding piggyback a data signal containing web site address data



as a means for causing a browser in a computer to access a web site from the web site address transferred thereto from a web site data receiver.

27. A radio frequency tuning device comprising a smart card in accordance  
5 with any of claims 18 to 26 for receiving web site address and related data from a transmitter as pre determined by utilising the smart card as a radio frequency tuning means and address label verifier when placed in the smart card facility built into a data receiver.

10 28. A process for transmitting and receiving web site address data to obtain information from a predetermined web site via the internet, substantially as herein described with reference to the accompanying description and drawings.

29. Apparatus for transmitting and receiving web site address data to obtain  
15 information from a predetermined web site via the internet, substantially as herein described with reference to the accompanying description and drawings.

30. A process according to any of the preceding claims wherein said radio  
20 signal data carrier comprises an analogue or digital signal.

31. A web site address and related data or email address data extractor  
receiver for use with satellite, cable, WEB TV, or phone delivery system said data  
extractor receiver intercepts the radio signal transmission or broadcast by  
connecting to the signals carrier just prior to it's connection to said satellite,  
25 cable, WEB TV, or phone delivery system and extracts the web site address and  
related data or email address data as set or tuned on said smart card inserted  
into the data extractor receiver, said web site address and related data is then  
transmitted by low power transmitter to a receiver with a factory set smart card  
inserted that is pre tuned to receive low power web site address and related data  
30 transmissions and is connected to either a computer, WEB TV or phone delivery  
system.

32. A process in accordance with claim 31 where web site address and related data or email address data is transmitted according to the radio frequency setting on a factory frequency set smart card placed in a receiver attached to a computer or WEB TV or GSM system and said data is transmitted on a radio  
5 signal whose frequency corresponds to that on said factory set smart card and said web site address and related data or email address data is transmitted by low power transmitter to said computer, WEB TV or GSM system to enable the utilising said transmitted data.

10 33. A process to set the time and radio frequency of a transmission or broadcast onto a smart card of any locally transmitted or broadcast radio signal frequency to enable receiving the web site address and related data or email address data that is riding piggyback on said radio signal transmitted at the time and on the radio frequency as set on said smart card, and then storing the  
15 received web site address and related data or email address in a computer with a proprietary program that parses said data and saves the information in a folder on said computer for future access by clicking on said saved data address.

20 34. A system to set the time and radio signal frequency onto a smart card for any locally transmitted or broadcast radio signal frequency to enable receiving the web site address data that is riding piggyback on said radio signal and then storing said web site address in said receivers microprocessor for future access by downloading said stored web site addresses.

25 35. A radio signal data receiver powered by battery to enable receiving said radio signal data and storing said data in the microprocessor of said data receiver for future access in accordance to claims 33 to 34.

30 36. A process for setting the smart card in the radio data receiver to randomly scan several radio frequencies for web site address data and address label verification data or email address data at the same time and to transfer said received data for immediate use or to store said data for future use in accordance with any of the prior relevant claims.

37. An application for setting the smart card in the radio data receiver to randomly scan several radio frequencies for web site address data and address label verification data or email address data at the same time and to transfer said  
5 received data for immediate use or to store said data for future use in accordance with any of the prior relevant claims.

38. A system using a smart card for setting the individual frequency or channel on, to enable receiving or extracting web site address or related data including  
10 email addresses and address label that is specific to each individual station within the following grouping of media transmitters or broadcasters whose said individual stations within in each group possess their own unique radio signal frequency or channel for individual station selection ; 1.AM radio, 2.FM radio, 3.MW radio, 4.  
UHF TV, 5.VHF TV, 6.Satellite transmission, 7.Cable transmission, 8.Web TV,  
15 9.Local broadcasters, 9.Low Power transmission, 10. Telephone line media delivery systems, In accordance with any of the previous relevant claims

39. A system using a read / write smart card inserted into a GSM media delivery device said smart card is set or tuned to receive specific transmissions from a local  
20 transmitter containing web site address or related data to enable the viewing of said web site without any further action having to take place after said web site address is transferred to a browser program according to claims 2 to 4.

40. A system according to claim 35 and 39 that uses a read only smart card that  
25 is pre set to a specific radio frequency that mite be transmitted from a train, car, bus, or any other transportation means as well as from a stationary transmitter transmitting web site address and related data containing local sales and events taking place relative to the local community and whose said smart card is set to receive transmissions within a local transmittal area.

30

41. A system according to claim 39 and 40 that uses a read /write smart card to enable receiving web site address and related data from any predetermined

transmitter whose frequency is set on said smart card prior to placing said smart card into a smart card facility in the body of said GSM media device to enable receiving data from any transmission carrying said web site address and related data that may be in either analogue or digital format.

5

42 A system according to any of the previous claims that uses a smart card containing a memory chip that is either read only or read / write and well known in the arts by the generic term smart card and as described in the prior claims herein as a smart card used to set the desired radio frequency and address label  
10 onto, said smart card is also used to parse the received web site address data and related data including email address data substantially as herein described and by reference to the accompanying drawings number 16a and 16b.

43. Apparatus for receiving web site address and related transmitted data for  
15 use in obtaining information from a predetermined web site via the Internet, substantially as herein described with reference to the accompanying drawings

44. A process for receiving web site address and related transmitted data for  
use in obtaining information from a predetermined web site via the Internet,  
20 substantially as herein described with reference to the accompanying drawings

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Application No: GB 9926294.1  
Claims searched: 1 to 27

61  
Examiner: Glyn Hughes  
Date of search: 3 February 2000

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:  
UK Cl (Ed.R): H4L LDA, LDLX, LDLS, H4P PPG  
Int Cl (Ed.7): H04N 5/445, 7/088  
Other: Online: WPI, JAPIO, EPODOC

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X	EP 0899715 A2 (METEC) see WPI and EPODOC abstracts	1 - 4, 6, 7, 12, 13, 14, 18 - 22
X	WO 97/33434 A1 (ACTV) see page 16 line 11 to page 17 line 24	1 - 4, 6, 7, 12, 13, 14, 18 - 22
X	US 5929849 (KIKINIS) see abstract and figure 1	1 - 4, 6, 7, 12, 13, 14, 18 - 22
X	JP 100257455 (SONY) see WPI and JAPIO abstracts	1 - 4, 6, 7, 12, 13, 14, 18 - 22

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
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&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

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